

08/ 669,389

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TERMINAL (ENTER 1, 2, 3, OR ?):2
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NEWS	4	Mar 13	Retrieve CAS Abbreviations Automatically with SET ABBREVIATION
NEWS	5	Mar 13	More Highlighting Options with SET HIGHLIGHT RN
NEWS	6	Mar 13	Separate Incomplete Iterations from your CASREACT Answer Sets
NEWS	7	Mar 13	Meeting Abstracts for San Francisco ACS meeting Now in CPlus
NEWS	8	Mar 28	EUROPATFULL - European Patents Full Text File
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NEWS	PHONE		Direct Dial and Telecommunication Network Access to STN
NEWS	WWW		CAS World Wide Web Site (general information)

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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 15:37:33 ON 14 APR 1997

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COST IN U.S. DOLLARS          SINCE FILE          TOTAL
                                ENTRY          SESSION
FULL ESTIMATED COST          0.15          0.15
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FILE 'REGISTRY' ENTERED AT 15:37:39 ON 14 APR 1997
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT
COPYRIGHT (C) 1997 American Chemical Society (ACS)

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STRUCTURE FILE UPDATES: 13 APR 97 HIGHEST RN 188288-36-0
DICTIONARY FILE UPDATES: 13 APR 97 HIGHEST RN 188288-36-0
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TSCA INFORMATION NOW CURRENT THROUGH DECEMBER 1996

Please note that search-term pricing does apply when conducting SmartSELECT searches.

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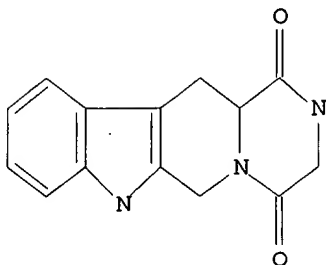
08/ 669,389

L1 STRUCTURE UPLOADED

=> d l1

'L1' HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 15:38:29

SAMPLE SCREEN SEARCH COMPLETED - 36 TO ITERATE

100.0% PROCESSED 36 ITERATIONS

4 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 360 TO 1080

PROJECTED ANSWERS: 4 TO 200

L2 4 SEA SSS SAM L1

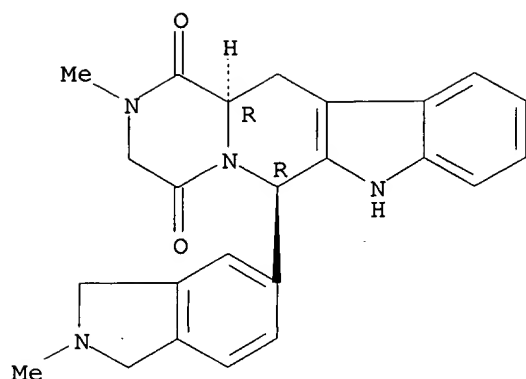
=> d scan l2

L2 4 ANSWERS REGISTRY COPYRIGHT 1997 ACS

IN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
6-(2,3-dihydro-2-methyl-1H-isoindol-5-yl)-2,3,6,7,12,12a-hexahydro-2-
methyl-, (6R-trans)- (9CI)

MF C24 H24 N4 O2

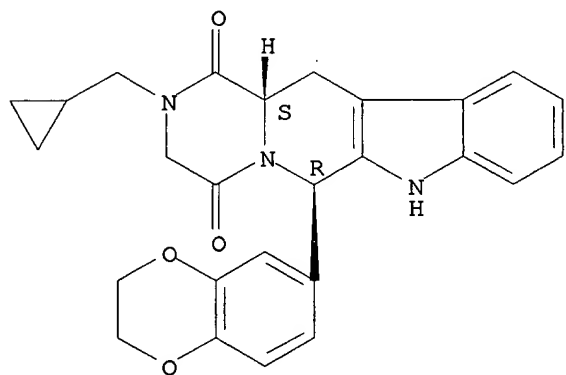
Absolute stereochemistry. Rotation (+).



HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):3

L2 4 ANSWERS REGISTRY COPYRIGHT 1997 ACS
 IN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 2-(cyclopropylmethyl)-6-(2,3-dihydro-1,4-benzodioxin-6-yl)-
 2,3,6,7,12,12a-hexahydro-, cis- (9CI)
 MF C26 H25 N3 O4

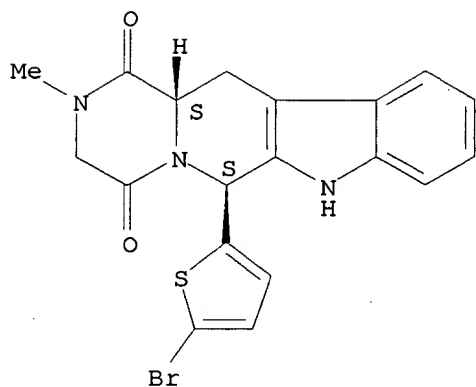
Relative stereochemistry.



L2 4 ANSWERS REGISTRY COPYRIGHT 1997 ACS
 IN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 6-(5-bromo-2-thienyl)-2,3,6,7,12,12a-hexahydro-2-methyl-, cis- (9CI)
 MF C19 H16 Br N3 O2 S

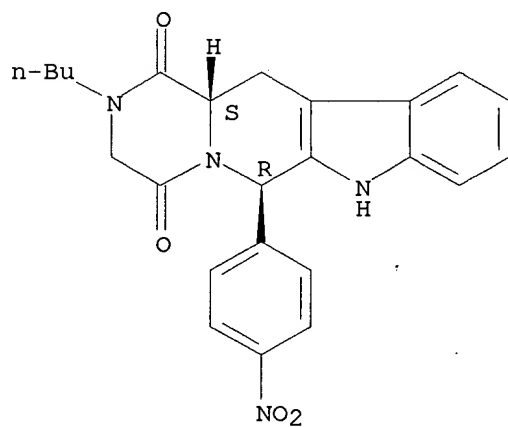
Relative stereochemistry.

08/ 669,389



L2 4 ANSWERS REGISTRY COPYRIGHT 1997 ACS
IN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
2-butyl-2,3,6,7,12,12a-hexahydro-6-(4-nitrophenyl)-, cis- (9CI)
MF C24 H24 N4 O4

Relative stereochemistry.



ALL ANSWERS HAVE BEEN SCANNED

=> s 11 ful

FULL SEARCH INITIATED 15:38:54

FULL SCREEN SEARCH COMPLETED - 694 TO ITERATE

100.0% PROCESSED 694 ITERATIONS

SEARCH TIME: 00.00.02

127 ANSWERS

L3 127 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

08/ 669,389

	ENTRY	SESSION
FULL ESTIMATED COST	110.64	110.79

FILE 'CAPLUS' ENTERED AT 15:39:06 ON 14 APR 1997
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FILE COVERS 1967 - 14 Apr 1997 VOL 126 ISS 15
FILE LAST UPDATED: 14 Apr 1997 (970414/ED)

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HCAPLUS file when using the FSEARCH command or when conducting
SmartSELECT searches with large numbers of terms.

Some chemical substances have deleted CAS Registry Numbers. To
ensure that you are using the most current CAS Registry Number,
and for a more complete search, start your CAS Registry Number
search in the REGISTRY file. Then use the L-number answer set
from REGISTRY as a search term in CAPLUS.

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> d his

(FILE 'HOME' ENTERED AT 15:37:33 ON 14 APR 1997)

FILE 'REGISTRY' ENTERED AT 15:37:39 ON 14 APR 1997

L1 STRUCTURE UPLOADED
L2 4 S L1
L3 127 S L1 FUL

FILE 'CAPLUS' ENTERED AT 15:39:06 ON 14 APR 1997

=> s 13

L4 14 L3

=> d 14 1-14 ibib abs hitstr

L4 ANSWER 1 OF 14 CAPLUS COPYRIGHT 1997 ACS

ACCESSION NUMBER: 1997:215770 CAPLUS

DOCUMENT NUMBER: 126:199582

TITLE: Preparation of pyrazino[2',1':6,1]pyrido[3,4-
b]indole-1,4-diones as cGMP-specific
phosphodiesterase inhibitors

INVENTOR(S): Daugan, Alain Claude-Marie; Gellibert, Francoise

PATENT ASSIGNEE(S): Laboratoire Glaxo Wellcome S.A., Fr.; Daugan,
Alain Claude-Marie; Gellibert, Francoise

SOURCE: PCT Int. Appl., 24 pp.

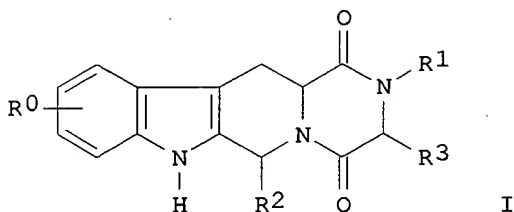
CODEN: PIXXD2

	NUMBER	DATE
PATENT INFORMATION:	WO 9703985 A1	970206
DESIGNATED STATES:	W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV,	

08/ 669,389

MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU,
SD, SE, SG
RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK,
ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, NL, PT,
SE

APPLICATION INFORMATION: WO 96-EP3025 960711
PRIORITY APPLN. INFO.: GB 95-14465 950714
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE(S): CASREACT 126:199582; MARPAT 126:199582
GI



AB The title compds. [I; R0 = H, halo, C1-6 alkyl; R1 = H, C1-6 alkyl; R2 = (un)substituted benzofuranyl; R3 = H, C1-3 alkyl], useful as potent and selective inhibitors of cGMP-specific PDE, were prepd. and formulated. Thus, cyclization of (1R,3R)-Me 1,2,3,4-tetrahydro-1-(5-benzofuranyl)-2-chloroacetyl-9H-pyrido[3,4-b]indole-3-carboxylate with MeNH₂ in MeOH/EtOH afforded (6R,12aR)-I [R0, R3 = H; R1 = Me; R2 = 5-benzofuranyl] which showed IC₅₀ of 15 nM against cGMP-specific PDE in vitro, and AUC (area under curve of the fall in blood pressure) of 137 mm Hg.h in spontaneously hypertensive rats.

IT 187939-81-7P 187939-82-8P 187939-83-9P
187939-84-0P 187939-85-1P

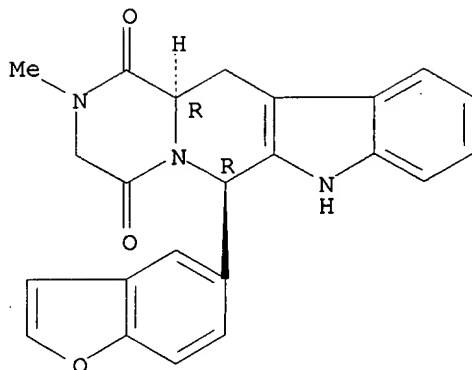
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of pyrazino[2',1':6,1]pyrido[3,4-b]indole-1,4-diones as cGMP-specific phosphodiesterase inhibitors)

RN 187939-81-7 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

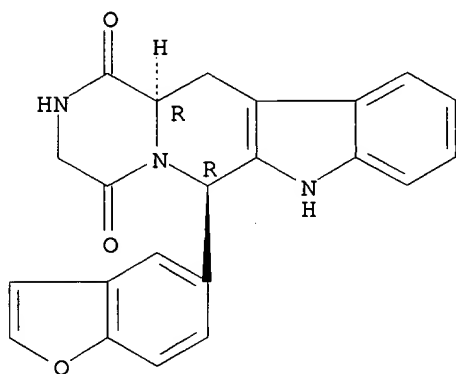
Absolute stereochemistry. Rotation (+).

08/ 669,389



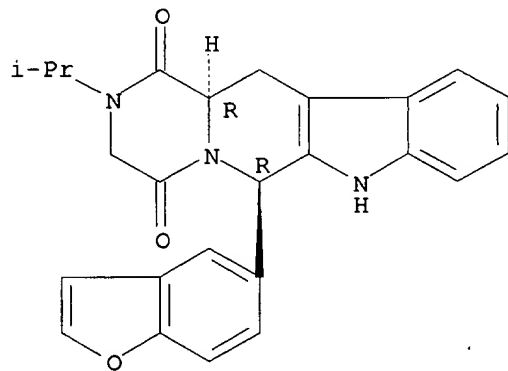
RN 187939-82-8 CAPLUS
CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry. Rotation (+).



RN 187939-83-9 CAPLUS
CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry. Rotation (+).

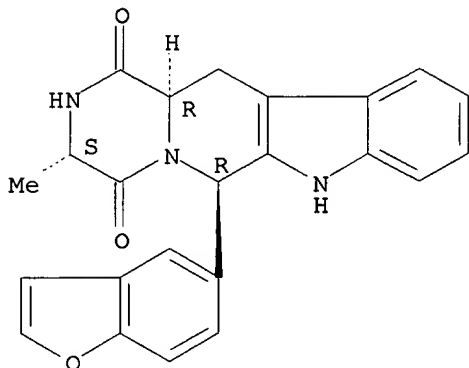


RN 187939-84-0 CAPLUS

08/ 669,389

CN INDEX NAME NOT YET ASSIGNED

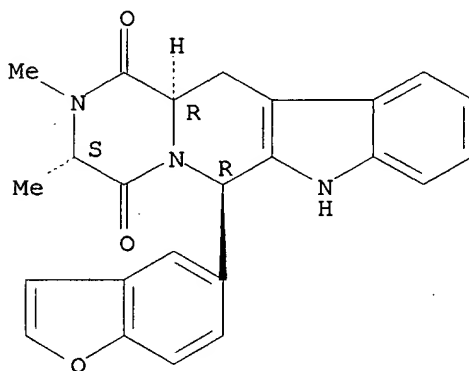
Absolute stereochemistry. Rotation (+).



RN 187939-85-1 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry. Rotation (+).



L4 ANSWER 2 OF 14 CAPLUS COPYRIGHT 1997 ACS

ACCESSION NUMBER: 1997:215760 CAPLUS

DOCUMENT NUMBER: 126:203727

TITLE: Use of cGMP-phosphodiesterase inhibitors to treat impotence

INVENTOR(S): Daugan, Alain Claude-Marie

PATENT ASSIGNEE(S): Laboratoire Glaxo Wellcome S.A., Fr.; Daugan, Alain Claude-Marie

SOURCE: PCT Int. Appl., 27 pp.

CODEN: PIXXD2

PATENT INFORMATION:

DESIGNATED STATES:

NUMBER

DATE

WO 9703675 A1

970206

W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV,

MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU,
SD, SE, SG
RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK,
ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, NL, PT,
SE

APPLICATION INFORMATION: WO 96-EP3024 960711
PRIORITY APPLN. INFO.: GB 95-14464 950714
DOCUMENT TYPE: Patent
LANGUAGE: English

AB Compds. such as (6R,12aR)-2,3,6,7,12,12a-hexahydro-2-methyl-6-(3,4-methylenedioxyphenyl)pyrazino[2',1':6,1]pyrido[3,4-b]indole-1,4-dione, (3S,6R,12aR)-2,3,6,7,12,12a-hexahydro-2,3-dimethyl-6-(3,4-methylenedioxyphenyl)pyrazino[2',1':6,1]pyrido[3,4-b]indole-1,4-dione, and physiol. acceptable salts and solvates thereof, can be used as cGMP-phosphodiesterase inhibitors in the treatment of impotence.

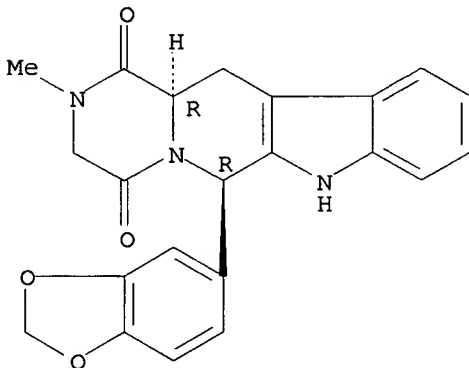
IT 171596-29-5P 171596-40-0P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(cGMP-phosphodiesterase inhibitor formulations to treat impotence)

RN 171596-29-5 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
6-(1,3-benzodioxol-5-yl)-2,3,6,7,12,12a-hexahydro-2-methyl-,
(6R-trans)- (9CI) (CA INDEX NAME)

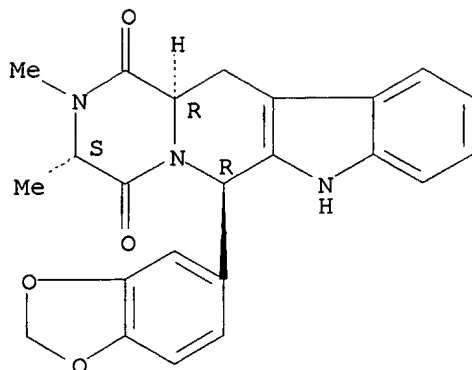
Absolute stereochemistry. Rotation (+).



RN 171596-40-0 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
6-(1,3-benzodioxol-5-yl)-2,3,6,7,12,12a-hexahydro-2,3-dimethyl-,
[3S-(3.alpha.,6.beta.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



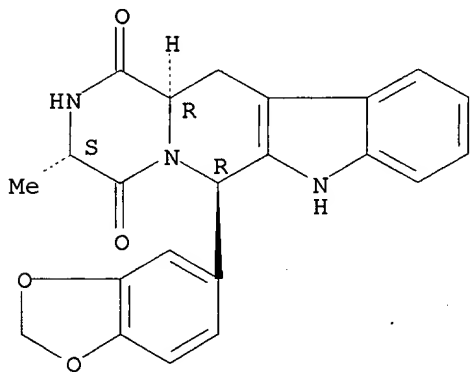
IT 187935-15-5P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL
(Biological study); PREP (Preparation); USES (Uses)
(cGMP-phosphodiesterase inhibitor formulations to treat
impotence)

RN 187935-15-5 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
6-(1,3-benzodioxol-5-yl)-2,3,6,7,12,12a-hexahydro-3-methyl-,
[3S-(3.alpha.,6.beta.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 3 OF 14 CAPLUS COPYRIGHT 1997 ACS

ACCESSION NUMBER: 1997:101617 CAPLUS

DOCUMENT NUMBER: 126:108935

TITLE: Method of producing a solid dispersion of a
poorly water-soluble drug

INVENTOR(S): Butler, James Matthew

PATENT ASSIGNEE(S): Glaxo Group Limited, UK; Butler, James Matthew

SOURCE: PCT Int. Appl., 27 pp.

CODEN: PIXXD2

NUMBER

DATE

PATENT INFORMATION:

WO 9638131 A1

961205

Late

DESIGNATED STATES: W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI
 RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, NL, PT, SE
 APPLICATION INFORMATION: WO 96-EP2299 960530
 PRIORITY APPLN. INFO.: GB 95-11220 950602
 DOCUMENT TYPE: Patent
 LANGUAGE: English

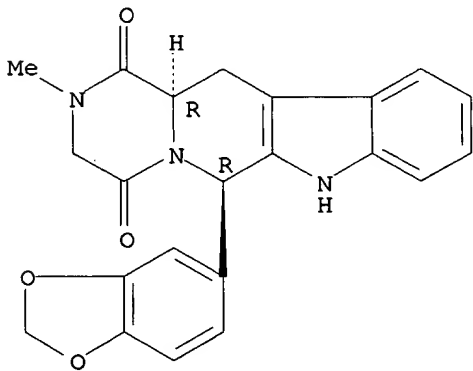
AB A process for prepg. solid dispersions of poorly sol. drugs comprises (1) providing an intimate mixt. contg. the carrier or excipient and a nonaq. water-miscible solvent, and optionally, water, (2) mixing the intimate mixt. with the poorly water-sol. drug, and (3) pptg. the drug and the carrier or excipient. Specifically, solid dispersions of (6R,12aR)-2,3,6,7,12,12a-hexahydro-2-methyl-6-(3,4-methylenedioxyphenyl)pyrazino[2',1':6,1]pyrido[3,4-b]indole-1,4-dione (I) and (+)-N-[1-(adamantanmethyl)-2,4-dioxo-5-phenyl-2,3,4,5-tetrahydro-1H-1,5-benzodiazepin-3-yl]-N'-phenylurea are described. I 1 g and hydroxypropyl Me cellulose phthalate 1 g were dissolved in a 9:1 mixt. of acetone/water (27 mL) and 0.25 M HCl 83 mL was added to obtain a ppt. The ppt. was filtered, washed with water, dried, and milled. A tablet contg. 100 mg ppt. was formulated.

IT **171596-29-5P**
 RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (prepn. of pyrazinopyridoindole deriv. in manuf. of solid dispersion of poorly water-sol. drugs)

RN 171596-29-5 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 6-(1,3-benzodioxol-5-yl)-2,3,6,7,12,12a-hexahydro-2-methyl-,
 (6R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L4 ANSWER 4 OF 14 CAPLUS COPYRIGHT 1997 ACS
 ACCESSION NUMBER: 1995:986316 CAPLUS
 DOCUMENT NUMBER: 124:55977

TITLE: Preparation of pyrazinopyridoindolediones as inhibitors of cyclic guanosine 3',5'-monophosphate specific phosphodiesterase

INVENTOR(S): Daugan, Alain Claude-Marie

PATENT ASSIGNEE(S): Laboratoires Glaxo S.A., Fr.

SOURCE: PCT Int. Appl., 87 pp.
CODEN: PIXXD2

	NUMBER	DATE
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PATENT INFORMATION:	WO 9519978 A1	950727
DESIGNATED STATES:	W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US	
	RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG	
APPLICATION INFORMATION:	WO 95-EP183	950119
PRIORITY APPLN. INFO.:	GB 94-1090	940121
DOCUMENT TYPE:	Patent	
LANGUAGE:	English	
OTHER SOURCE(S):	MARPAT 124:55977	

GI For diagram(s), see printed CA Issue.

AB The title compds. I [R represents hydrogen, halogen or C1-6 alkyl; R1 represents hydrogen, C1-6 alkyl, C2-6 alkenyl, C2-6 alkynyl, haloC1-6alkyl, C3-8cycloalkyl, etc.; R2 represents an optionally substituted monocyclic arom. ring selected from benzene, thiophene, furan and pyridine or an optionally substituted bicyclic ring Q1 attached to the rest of the mol. via one of the benzene ring carbon atoms and wherein the fused ring A is a 5- or 6-membered ring which may be satd. or partially or fully unsatd. and comprises carbon atoms and optionally one or two heteroatoms selected from oxygen, sulfur and nitrogen; and R3 represents hydrogen or C1-3 alkyl, or R1 and R3 together represent a 3- or 4-membered alkyl or alkenyl chain] are prepd. In an in vitro test for inhibitory effect on cGMP-PDE, cis-2,3,6,7,12,12a-hexahydro-2-(4-pyridylmethyl)-6-(3,4-methylenedioxyphenyl)pyrazino[2',1':6,1]pyrido[3,4-b]indole-1,4-dione (prepn. given) showed IC50 of 10 nM.

IT 171488-01-0P 171488-02-1P 171488-03-2P
171488-04-3P 171488-05-4P 171488-06-5P
171488-07-6P 171488-08-7P 171488-09-8P
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171488-28-1P 171488-29-2P 171488-30-5P
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Applicant's

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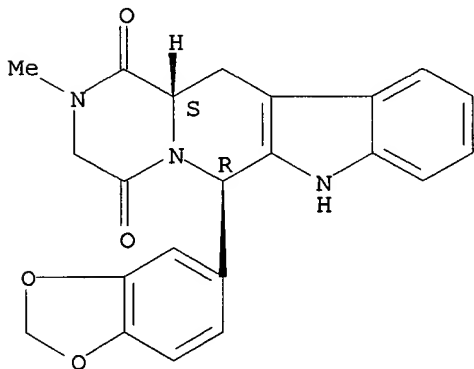
RL: BAC (Biological activity or effector, except adverse); SPN
 (Synthetic preparation); THU (Therapeutic use); BIOL (Biological
 study); PREP (Preparation); USES (Uses)

(prepn. of pyrazinopyridoindolediones as inhibitors of cyclic
 guanosine monophosphate specific phosphodiesterase)

RN 171488-01-0 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 6-(1,3-benzodioxol-5-yl)-2,3,6,7,12,12a-hexahydro-2-methyl-, cis-
 (9CI) (CA INDEX NAME)

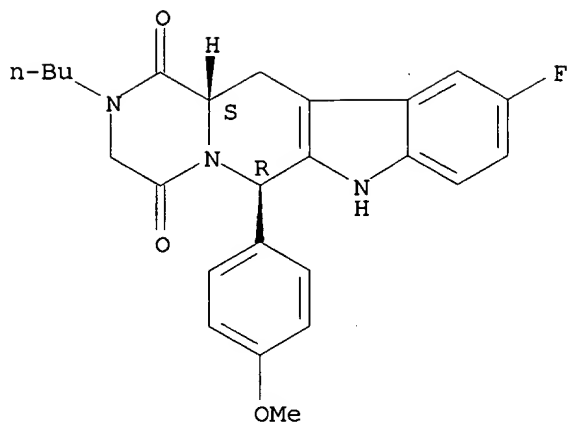
Relative stereochemistry.



RN 171488-02-1 CAPLUS

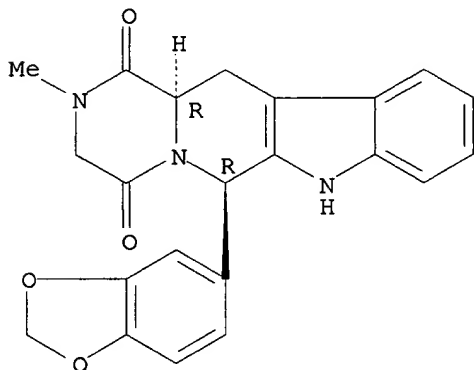
CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 2-butyl-10-fluoro-2,3,6,7,12,12a-hexahydro-6-(4-methoxyphenyl)-,
 cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



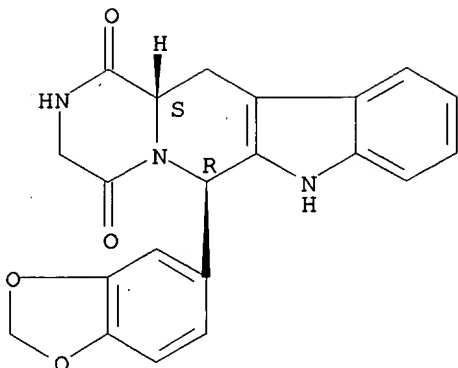
RN 171488-03-2 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 6-(1,3-benzodioxol-5-yl)-2,3,6,7,12,12a-hexahydro-2-methyl-, trans-
 (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 171488-04-3 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 6-(1,3-benzodioxol-5-yl)-2,3,6,7,12,12a-hexahydro-, cis- (9CI) (CA
 INDEX NAME)

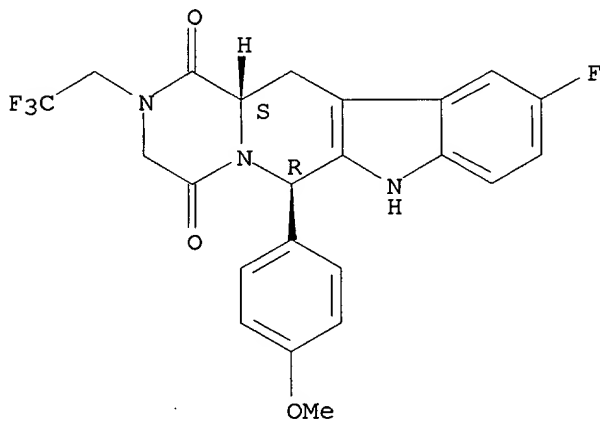
Relative stereochemistry.



RN 171488-05-4 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
10-fluoro-2,3,6,7,12,12a-hexahydro-6-(4-methoxyphenyl)-2-(2,2,2-
trifluoroethyl)-, cis- (9CI) (CA INDEX NAME)

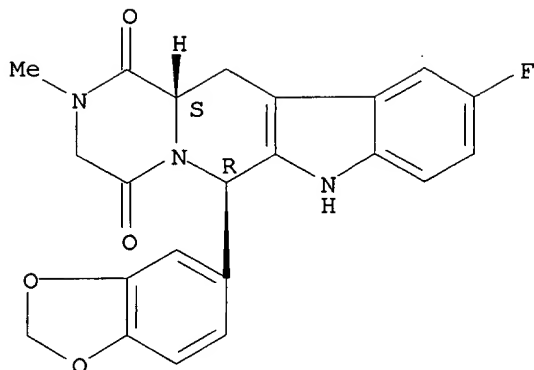
Relative stereochemistry.



RN 171488-06-5 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
6-(1,3-benzodioxol-5-yl)-10-fluoro-2,3,6,7,12,12a-hexahydro-2-methyl-
, cis- (9CI) (CA INDEX NAME)

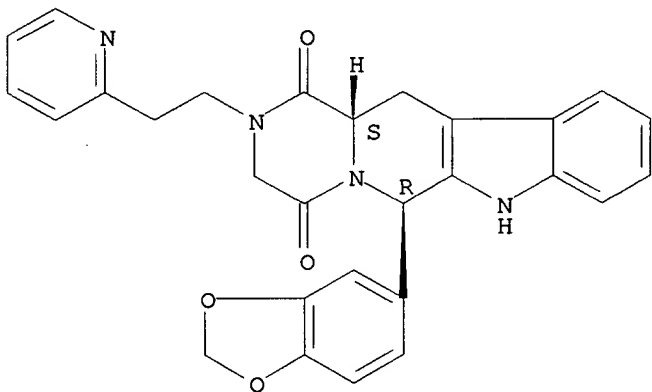
Relative stereochemistry.



RN 171488-07-6 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
6-(1,3-benzodioxol-5-yl)-2,3,6,7,12,12a-hexahydro-2-[2-(2-
pyridinyl)ethyl]-, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.

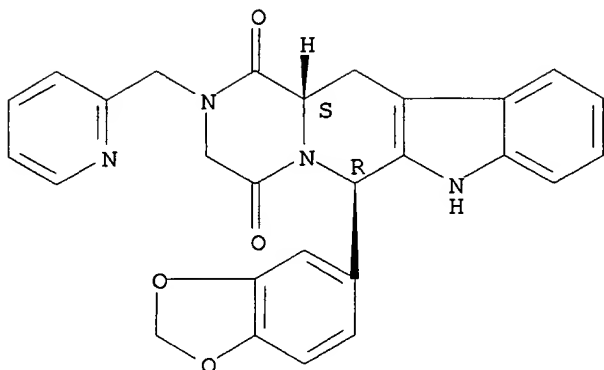


RN 171488-08-7 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
6-(1,3-benzodioxol-5-yl)-2,3,6,7,12,12a-hexahydro-2-(2-
pyridinylmethyl)-, cis- (9CI) (CA INDEX NAME)

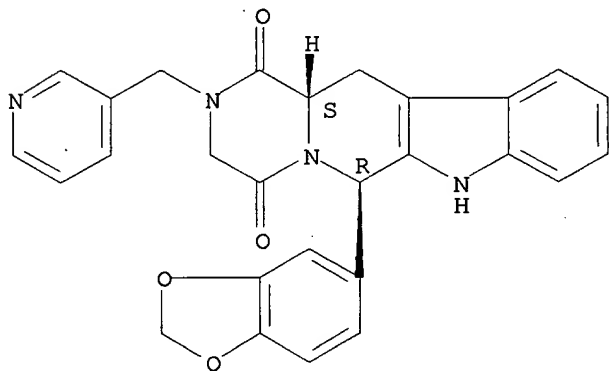
Relative stereochemistry.

08/ 669,389



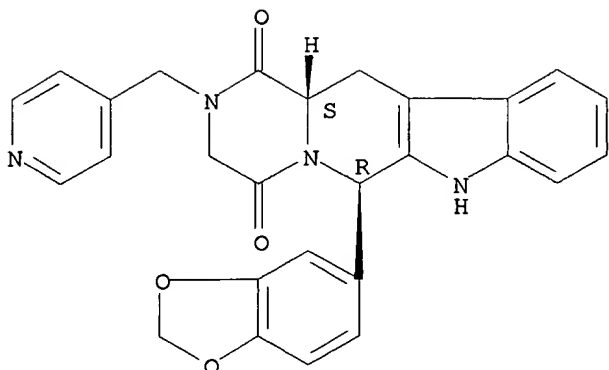
RN 171488-09-8 CAPLUS
CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
6-(1,3-benzodioxol-5-yl)-2,3,6,7,12,12a-hexahydro-2-(3-
pyridinylmethyl)-, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 171488-10-1 CAPLUS
CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
6-(1,3-benzodioxol-5-yl)-2,3,6,7,12,12a-hexahydro-2-(4-
pyridinylmethyl)-, cis- (9CI) (CA INDEX NAME)

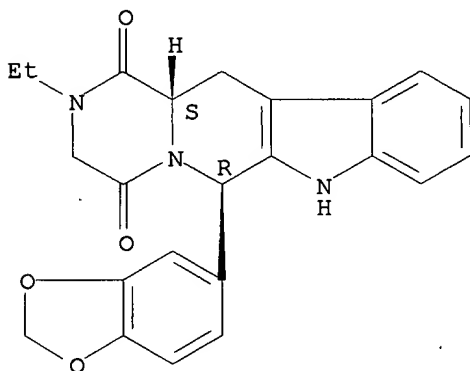
Relative stereochemistry.



RN 171488-11-2 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
6-(1,3-benzodioxol-5-yl)-2-ethyl-2,3,6,7,12,12a-hexahydro-, cis-
(9CI) (CA INDEX NAME)

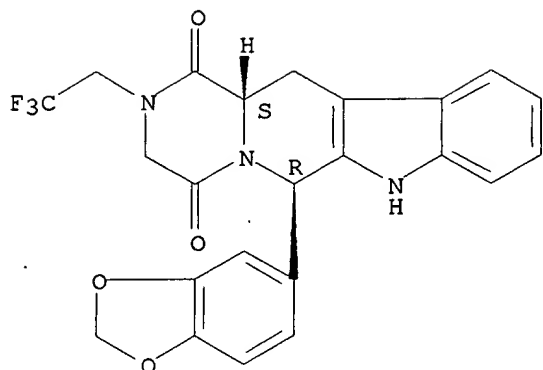
Relative stereochemistry.



RN 171488-12-3 CAPLUS

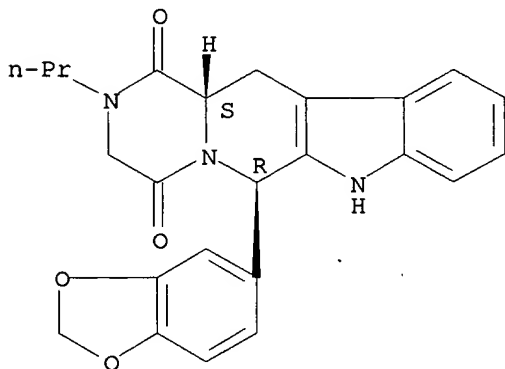
CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
6-(1,3-benzodioxol-5-yl)-2,3,6,7,12,12a-hexahydro-2-(2,2,2-
trifluoroethyl)-, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



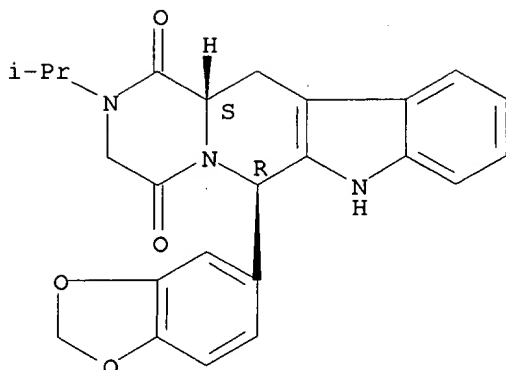
RN 171488-13-4 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 6-(1,3-benzodioxol-5-yl)-2,3,6,7,12,12a-hexahydro-2-propyl-, cis-
 (9CI) (CA INDEX NAME)

Relative stereochemistry.



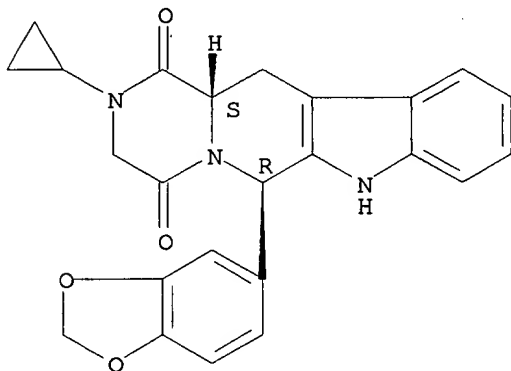
RN 171488-14-5 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 6-(1,3-benzodioxol-5-yl)-2,3,6,7,12,12a-hexahydro-2-(1-methylethyl)-
 , cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



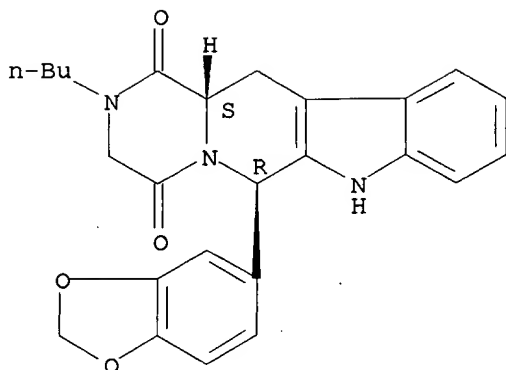
RN 171488-15-6 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 6-(1,3-benzodioxol-5-yl)-2-cyclopropyl-2,3,6,7,12,12a-hexahydro-,
 cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 171488-16-7 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 6-(1,3-benzodioxol-5-yl)-2-butyl-2,3,6,7,12,12a-hexahydro-, cis-
 (9CI) (CA INDEX NAME)

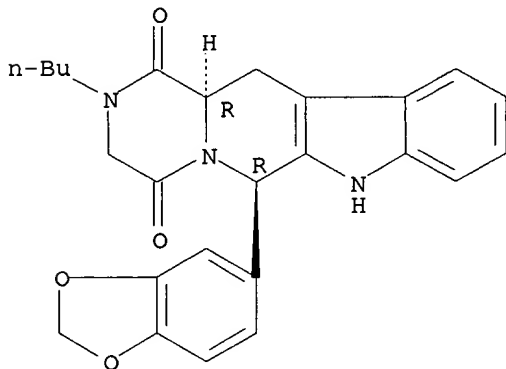
Relative stereochemistry.



RN 171488-17-8 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
6-(1,3-benzodioxol-5-yl)-2-butyl-2,3,6,7,12,12a-hexahydro-, trans-
(9CI) (CA INDEX NAME)

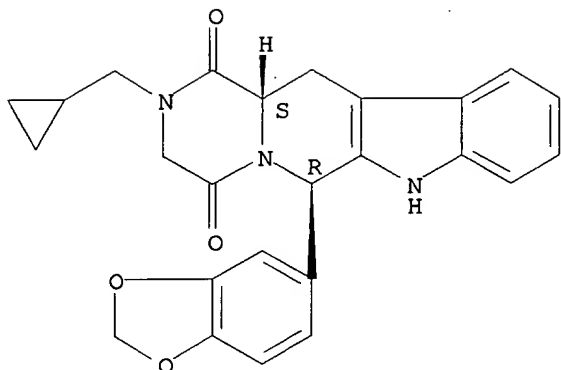
Relative stereochemistry.



RN 171488-18-9 CAPLUS

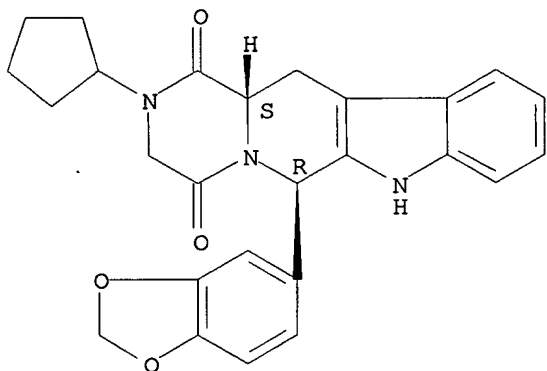
CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
6-(1,3-benzodioxol-5-yl)-2-(cyclopropylmethyl)-2,3,6,7,12,12a-
hexahydro-, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



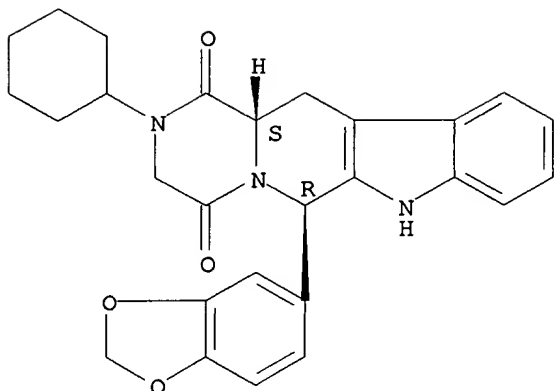
RN 171488-19-0 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 6-(1,3-benzodioxol-5-yl)-2-cyclopentyl-2,3,6,7,12,12a-hexahydro-,
 cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



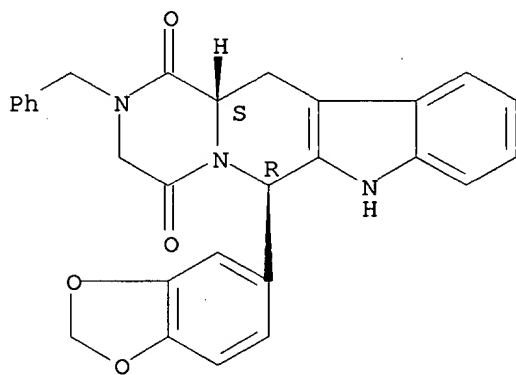
RN 171488-20-3 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 6-(1,3-benzodioxol-5-yl)-2-cyclohexyl-2,3,6,7,12,12a-hexahydro-,
 cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



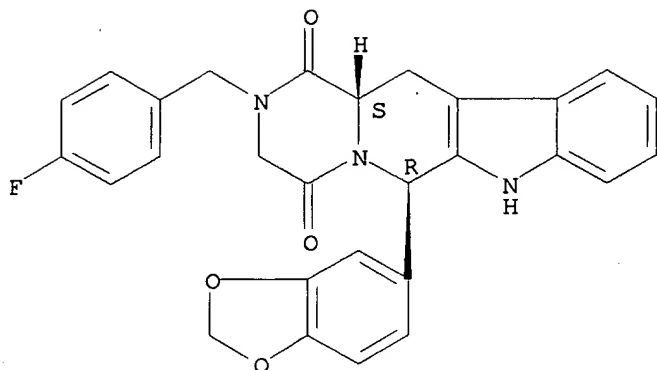
RN 171488-21-4 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 6-(1,3-benzodioxol-5-yl)-2,3,6,7,12,12a-hexahydro-2-(phenylmethyl)-,
 cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



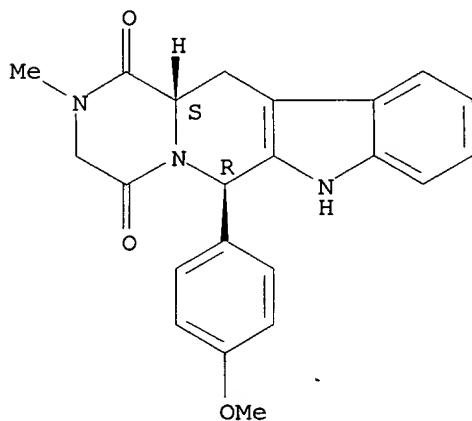
RN 171488-22-5 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 6-(1,3-benzodioxol-5-yl)-2-[(4-fluorophenyl)methyl]-2,3,6,7,12,12a-
 hexahydro-, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



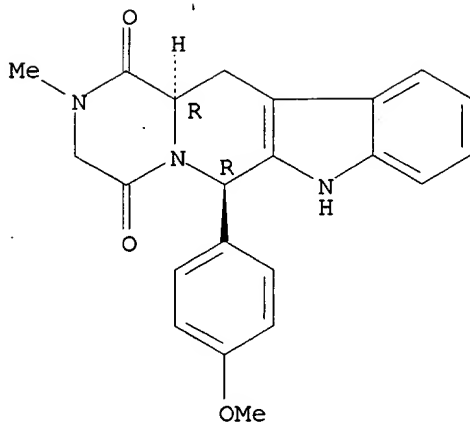
RN 171488-23-6 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 2,3,6,7,12,12a-hexahydro-6-(4-methoxyphenyl)-2-methyl-, cis- (9CI)
 (CA INDEX NAME)

Relative stereochemistry.



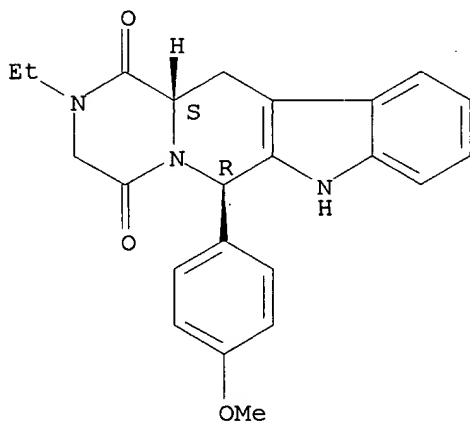
RN 171488-24-7 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 2,3,6,7,12,12a-hexahydro-6-(4-methoxyphenyl)-2-methyl-, trans- (9CI)
 (CA INDEX NAME)

Relative stereochemistry.



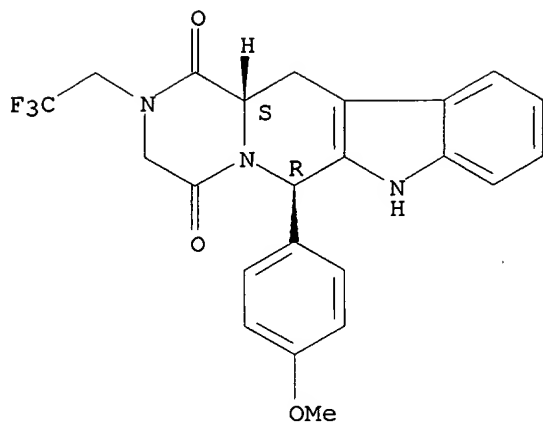
RN 171488-25-8 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 2-ethyl-2,3,6,7,12,12a-hexahydro-6-(4-methoxyphenyl)-, cis- (9CI)
 (CA INDEX NAME)

Relative stereochemistry.



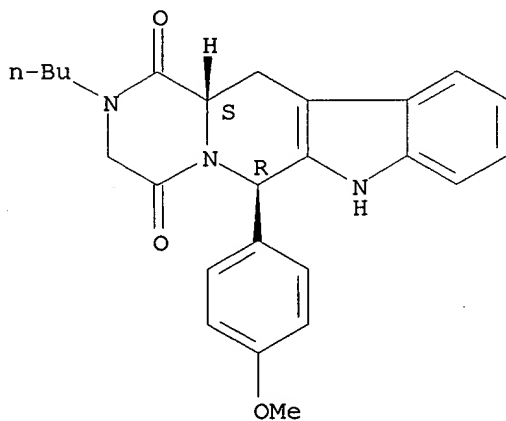
RN 171488-26-9 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 2,3,6,7,12,12a-hexahydro-6-(4-methoxyphenyl)-2-(2,2,2-
 trifluoroethyl)-, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



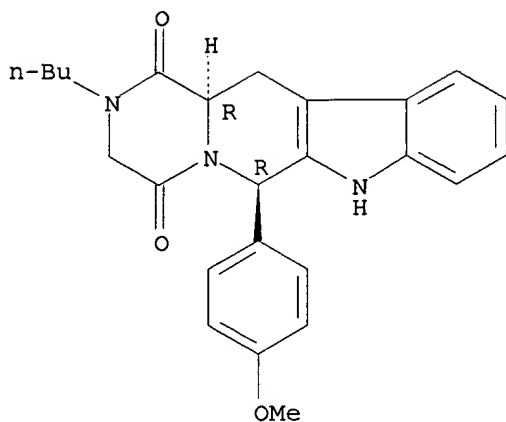
RN 171488-27-0 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 2-butyl-2,3,6,7,12,12a-hexahydro-6-(4-methoxyphenyl)-, cis- (9CI)
 (CA INDEX NAME)

Relative stereochemistry.



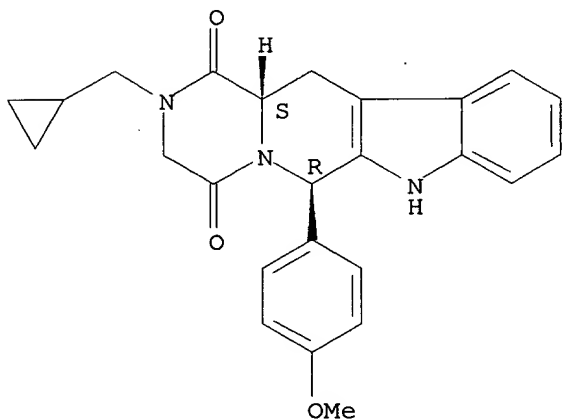
RN 171488-28-1 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 2-butyl-2,3,6,7,12,12a-hexahydro-6-(4-methoxyphenyl)-, trans- (9CI)
 (CA INDEX NAME)

Relative stereochemistry.



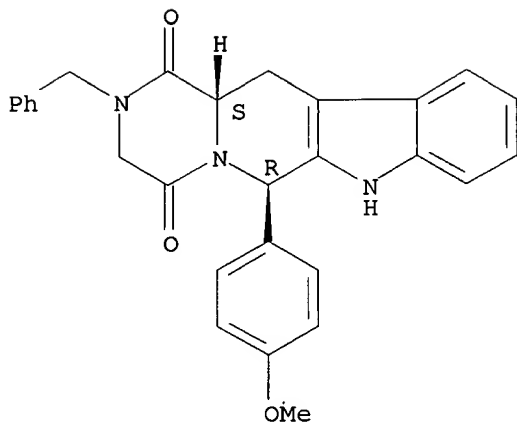
RN 171488-29-2 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 2-(cyclopropylmethyl)-2,3,6,7,12,12a-hexahydro-6-(4-methoxyphenyl)-,
 cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



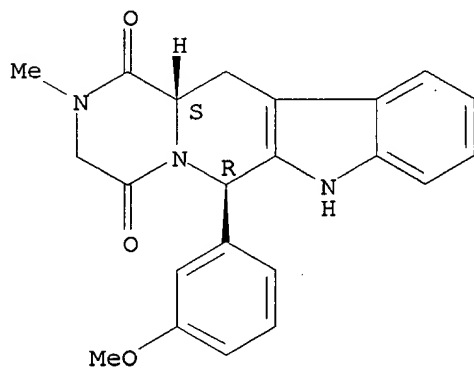
RN 171488-30-5 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 2-(phenylmethyl)-2,3,6,7,12,12a-hexahydro-6-(4-methoxyphenyl)-, cis-
 (9CI) (CA INDEX NAME)

Relative stereochemistry.



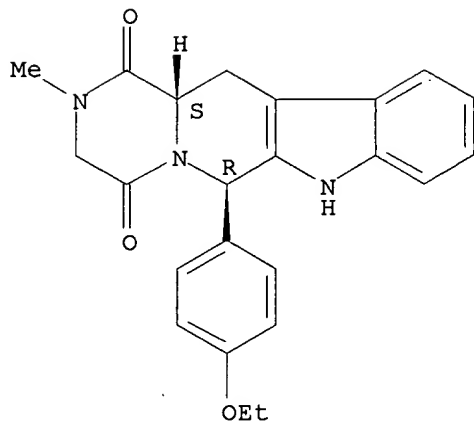
RN 171488-31-6 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 2,3,6,7,12,12a-hexahydro-6-(3-methoxyphenyl)-2-methyl-, cis- (9CI)
 (CA INDEX NAME)

Relative stereochemistry.



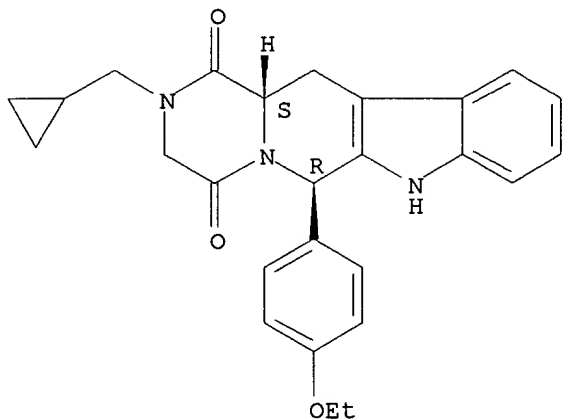
RN 171488-32-7 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 6-(4-ethoxyphenyl)-2,3,6,7,12,12a-hexahydro-2-methyl-, cis- (9CI)
 (CA INDEX NAME)

Relative stereochemistry.



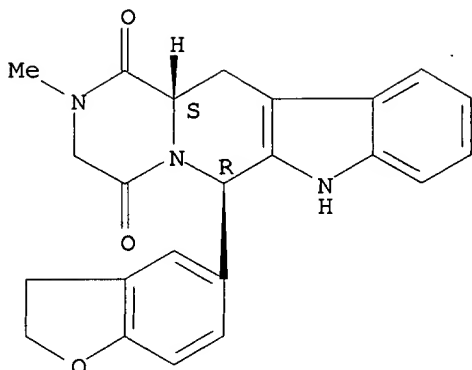
RN 171488-33-8 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 2-(cyclopropylmethyl)-6-(4-ethoxyphenyl)-2,3,6,7,12,12a-hexahydro-,
 cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 171488-34-9 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 6-(2,3-dihydro-5-benzofuranyl)-2,3,6,7,12,12a-hexahydro-2-methyl-,
 cis- (9CI) (CA INDEX NAME)

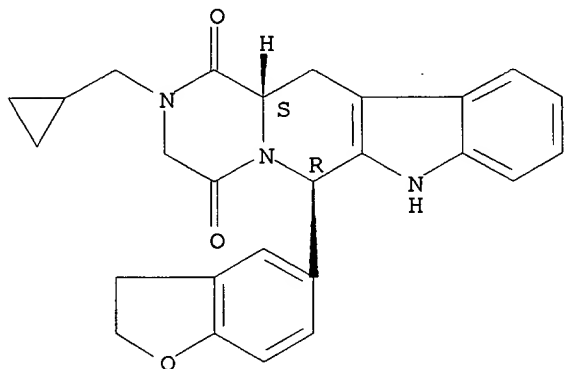
Relative stereochemistry.



RN 171488-35-0 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
2-(cyclopropylmethyl)-6-(2,3-dihydro-5-benzofuranyl)-2,3,6,7,12,12a-
hexahydro-, cis- (9CI) (CA INDEX NAME)

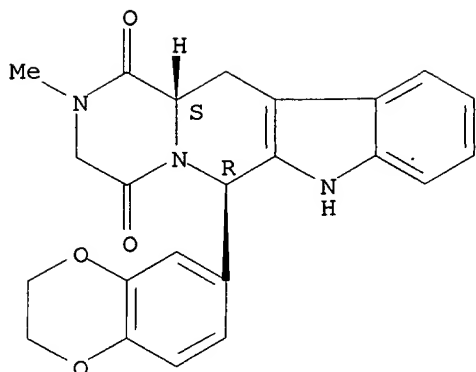
Relative stereochemistry.



RN 171488-36-1 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
6-(2,3-dihydro-1,4-benzodioxin-6-yl)-2,3,6,7,12,12a-hexahydro-2-
methyl-, cis- (9CI) (CA INDEX NAME)

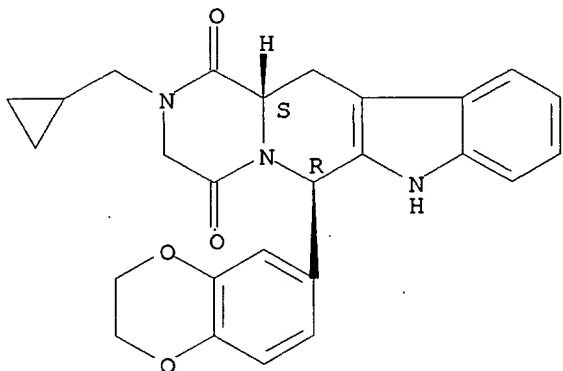
Relative stereochemistry.



RN 171488-37-2 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
2-(cyclopropylmethyl)-6-(2,3-dihydro-1,4-benzodioxin-6-yl)-
2,3,6,7,12,12a-hexahydro-, cis- (9CI) (CA INDEX NAME)

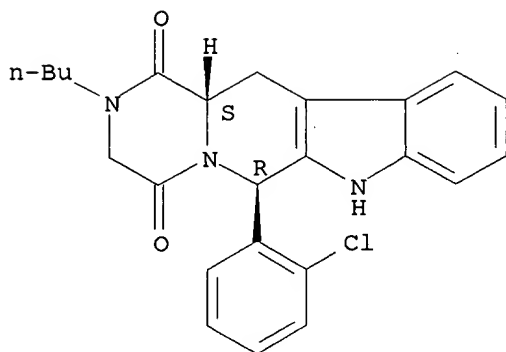
Relative stereochemistry.



RN 171488-38-3 CAPLUS

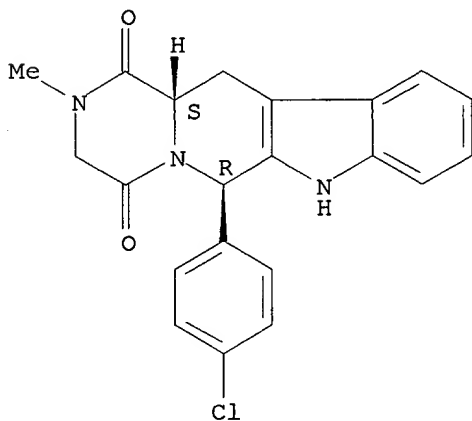
CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
2-butyl-6-(2-chlorophenyl)-2,3,6,7,12,12a-hexahydro-, cis- (9CI)
(CA INDEX NAME)

Relative stereochemistry.



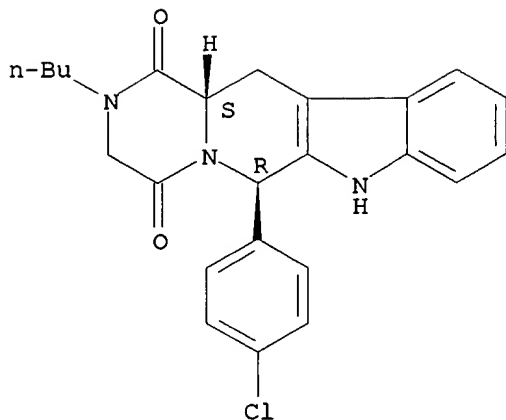
RN 171488-39-4 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 6-(4-chlorophenyl)-2,3,6,7,12,12a-hexahydro-2-methyl-, cis- (9CI)
 (CA INDEX NAME)

Relative stereochemistry.



RN 171488-40-7 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 2-butyl-6-(4-chlorophenyl)-2,3,6,7,12,12a-hexahydro-, cis- (9CI)
 (CA INDEX NAME)

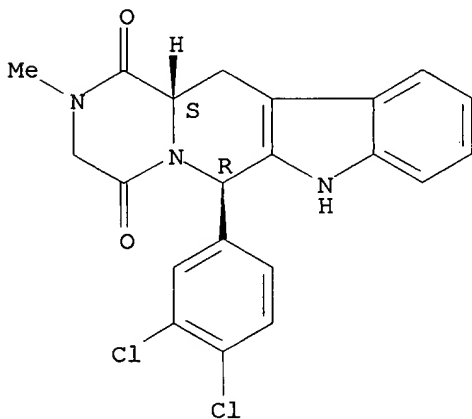
Relative stereochemistry.



RN 171488-41-8 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
6-(3,4-dichlorophenyl)-2,3,6,7,12,12a-hexahydro-2-methyl-, cis-
(9CI) (CA INDEX NAME)

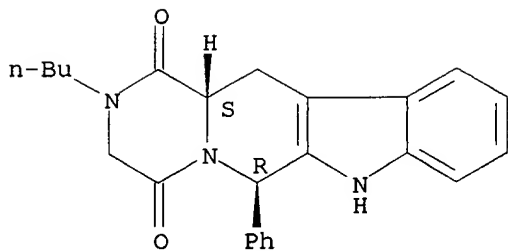
Relative stereochemistry.



RN 171488-42-9 CAPLUS

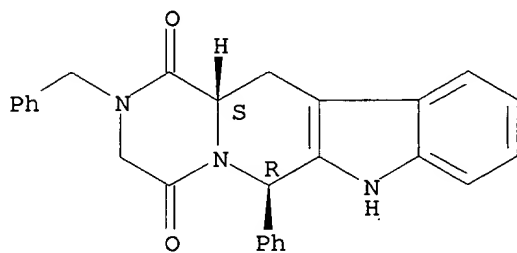
CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
2-butyl-2,3,6,7,12,12a-hexahydro-6-phenyl-, cis- (9CI) (CA INDEX
NAME)

Relative stereochemistry.



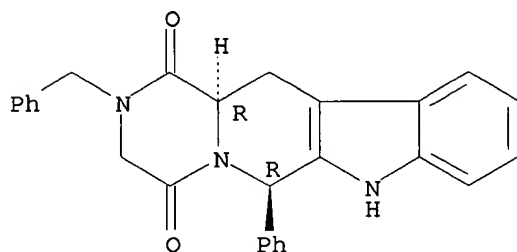
RN 171488-43-0 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 2,3,6,7,12,12a-hexahydro-6-phenyl-2-(phenylmethyl)-, cis- (9CI) (CA
 INDEX NAME)

Relative stereochemistry.



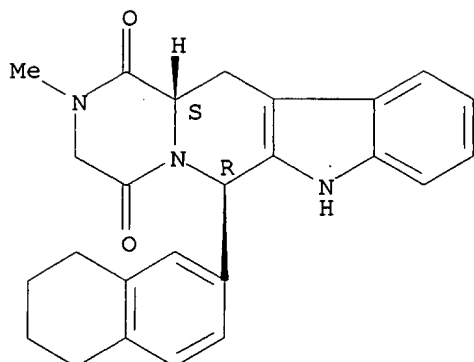
RN 171488-44-1 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 2,3,6,7,12,12a-hexahydro-6-phenyl-2-(phenylmethyl)-, trans- (9CI)
 (CA INDEX NAME)

Relative stereochemistry.



RN 171488-45-2 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 2,3,6,7,12,12a-hexahydro-2-methyl-6-(5,6,7,8-tetrahydro-2-
 naphthalenyl)-, cis- (9CI) (CA INDEX NAME)

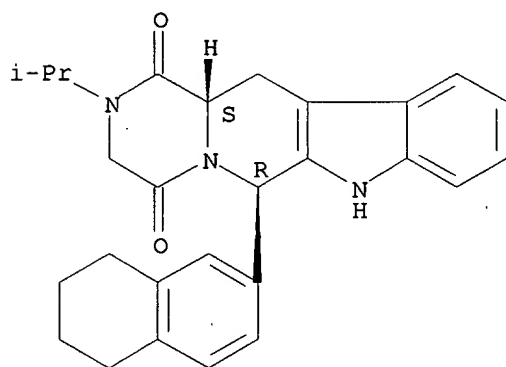
Relative stereochemistry.



RN 171488-46-3 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
2,3,6,7,12,12a-hexahydro-2-(1-methylethyl)-6-(5,6,7,8-tetrahydro-2-
naphthalenyl)-, cis- (9CI) (CA INDEX NAME)

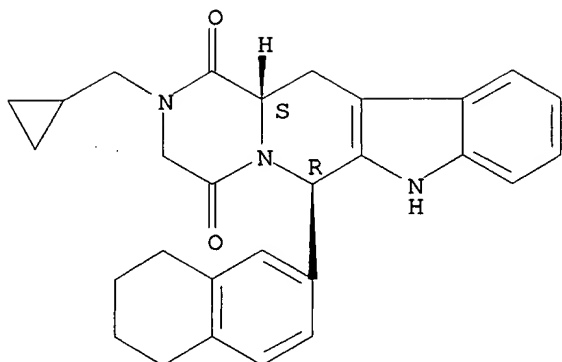
Relative stereochemistry.



RN 171488-47-4 CAPLUS

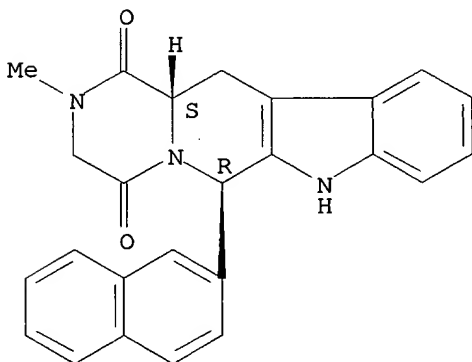
CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
2-(cyclopropylmethyl)-2,3,6,7,12,12a-hexahydro-6-(5,6,7,8-tetrahydro-
2-naphthalenyl)-, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



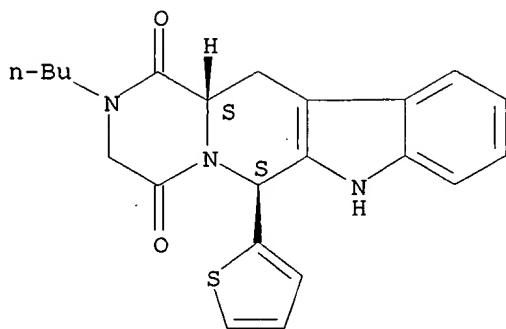
RN 171488-48-5 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 2,3,6,7,12,12a-hexahydro-2-methyl-6-(2-naphthalenyl)-, cis- (9CI)
 (CA INDEX NAME)

Relative stereochemistry.



RN 171488-49-6 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 2-butyl-2,3,6,7,12,12a-hexahydro-6-(2-thienyl)-, cis- (9CI) (CA
 INDEX NAME)

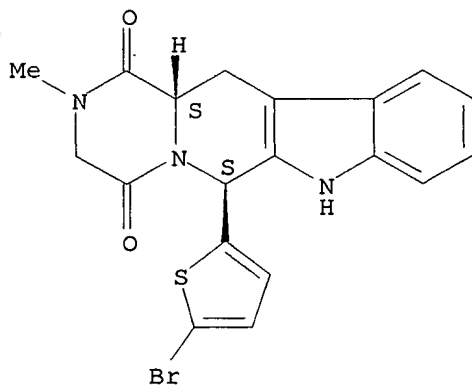
Relative stereochemistry.



RN 171488-50-9 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
6-(5-bromo-2-thienyl)-2,3,6,7,12,12a-hexahydro-2-methyl-, cis- (9CI)
(CA INDEX NAME)

Relative stereochemistry.

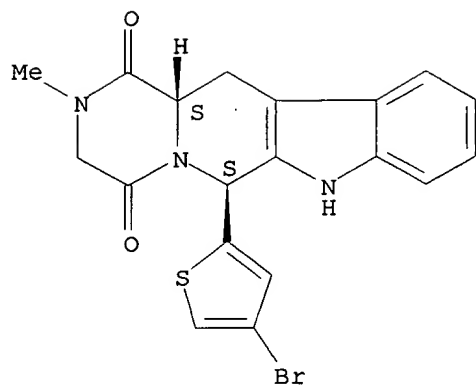


RN 171488-51-0 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
6-(4-bromo-2-thienyl)-2,3,6,7,12,12a-hexahydro-2-methyl-, cis- (9CI)
(CA INDEX NAME)

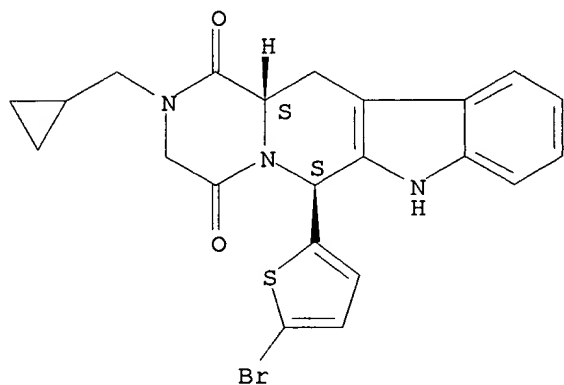
Relative stereochemistry.

08/ 669,389



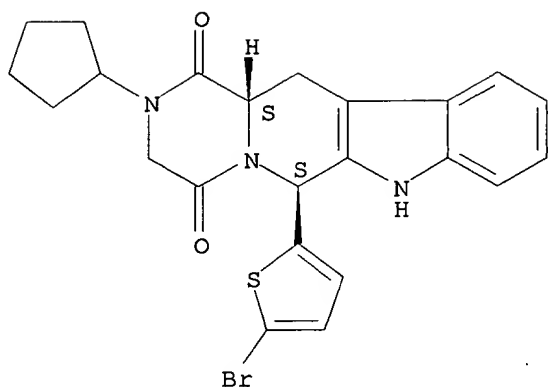
RN 171488-52-1 CAPLUS
CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
6-(5-bromo-2-thienyl)-2-(cyclopropylmethyl)-2,3,6,7,12,12a-hexahydro-
, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



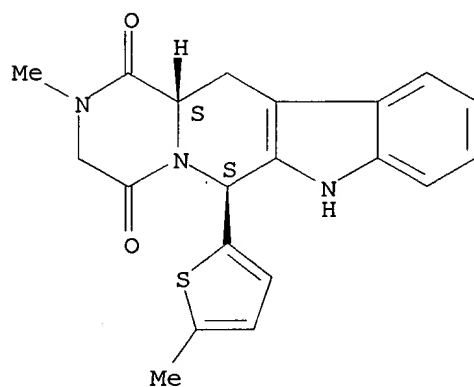
RN 171488-53-2 CAPLUS
CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
6-(5-bromo-2-thienyl)-2-cyclopentyl-2,3,6,7,12,12a-hexahydro-, cis-
(9CI) (CA INDEX NAME)

Relative stereochemistry.



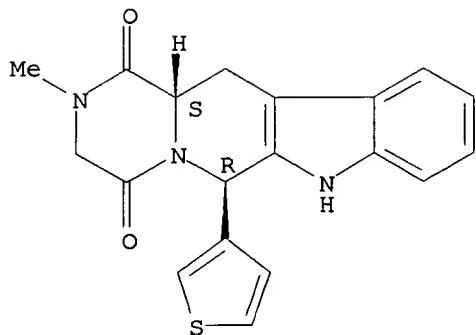
RN 171488-54-3 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 2,3,6,7,12,12a-hexahydro-2-methyl-6-(5-methyl-2-thienyl)-, cis-
 (9CI) (CA INDEX NAME)

Relative stereochemistry.



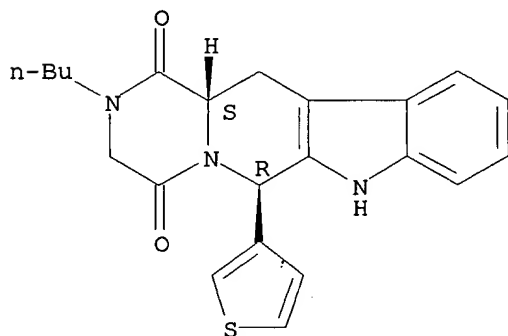
RN 171488-55-4 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 2,3,6,7,12,12a-hexahydro-2-methyl-6-(3-thienyl)-, cis- (9CI) (CA
 INDEX NAME)

Relative stereochemistry.



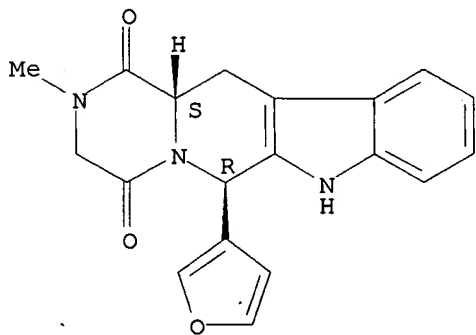
RN 171488-56-5 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 2-butyl-2,3,6,7,12,12a-hexahydro-6-(3-thienyl)-, cis- (9CI) (CA
 INDEX NAME)

Relative stereochemistry.



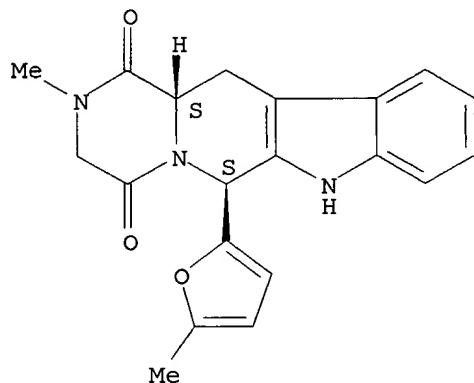
RN 171488-57-6 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 6-(3-furanyl)-2,3,6,7,12,12a-hexahydro-2-methyl-, cis- (9CI) (CA
 INDEX NAME)

Relative stereochemistry.



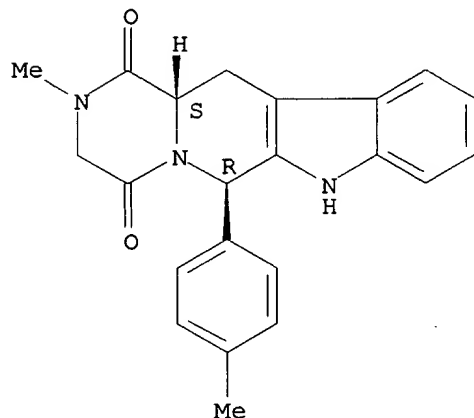
RN	171488-58-7	CAPLUS
CN	Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione, 2,3,6,7,12,12a-hexahydro-2-methyl-6-(5-methyl-2-furanyl)-, cis- (9CI) (CA INDEX NAME)	

Relative stereochemistry.



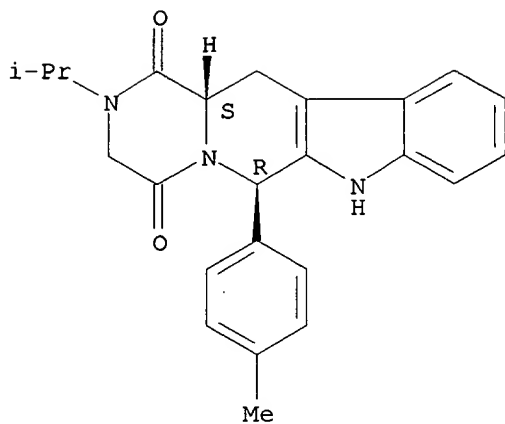
RN	171488-59-8	CAPLUS
CN	Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione, 2,3,6,7,12,12a-hexahydro-2-methyl-6-(4-methylphenyl)-, cis- (9CI) (CA INDEX NAME)	

Relative stereochemistry.



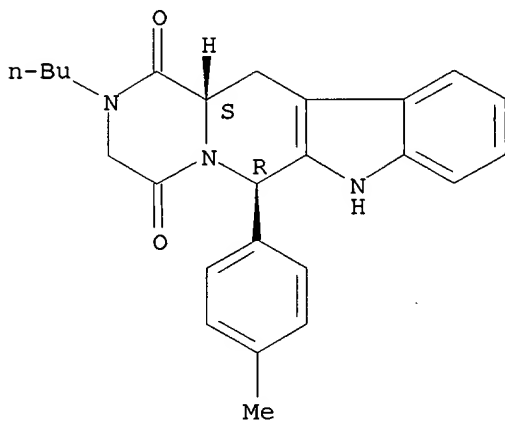
RN 171488-60-1 CAPLUS
CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
2,3,6,7,12,12a-hexahydro-2-(1-methylethyl)-6-(4-methylphenyl)-, cis-
(9CI) (CA INDEX NAME)

Relative stereochemistry.



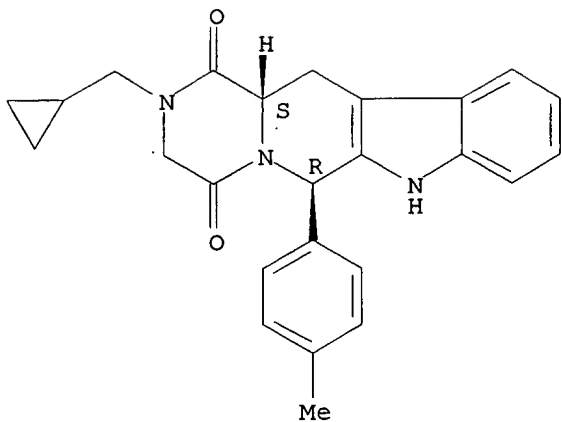
RN 171488-61-2 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 2-butyl-2,3,6,7,12,12a-hexahydro-6-(4-methylphenyl)-, cis- (9CI)
 (CA INDEX NAME)

Relative stereochemistry.



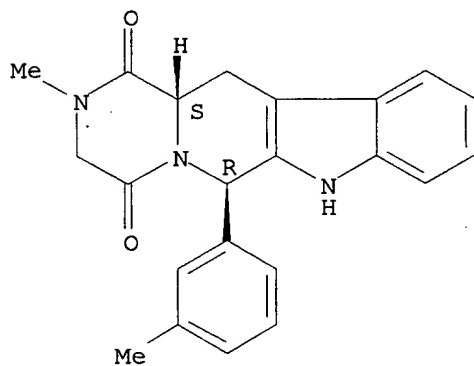
RN 171488-62-3 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 2-(cyclopropylmethyl)-2,3,6,7,12,12a-hexahydro-6-(4-methylphenyl)-,
 cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



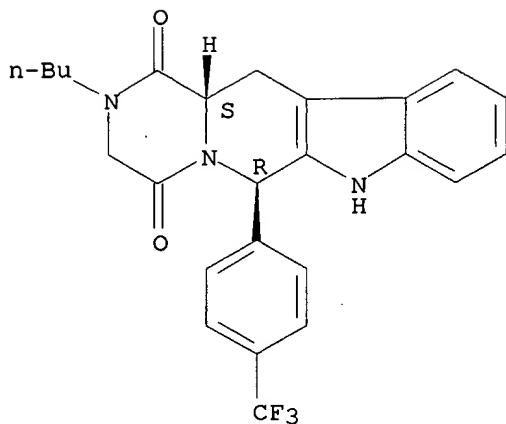
RN 171488-63-4 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 2,3,6,7,12,12a-hexahydro-2-methyl-6-(3-methylphenyl)-, cis- (9CI)
 (CA INDEX NAME)

Relative stereochemistry.



RN 171488-64-5 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 2-butyl-2,3,6,7,12,12a-hexahydro-6-[4-(trifluoromethyl)phenyl]-,
 cis- (9CI) (CA INDEX NAME)

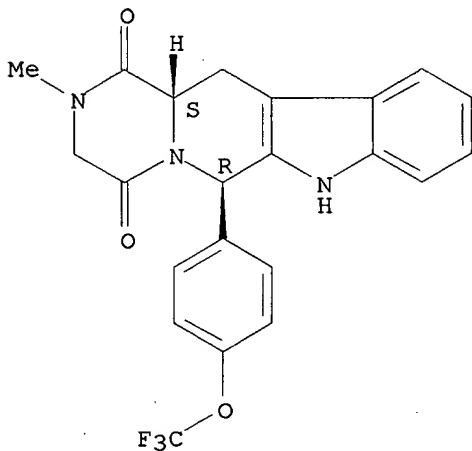
Relative stereochemistry.



RN 171488-65-6 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
2,3,6,7,12,12a-hexahydro-2-methyl-6-[4-(trifluoromethoxy)phenyl]-,
cis- (9CI) (CA INDEX NAME)

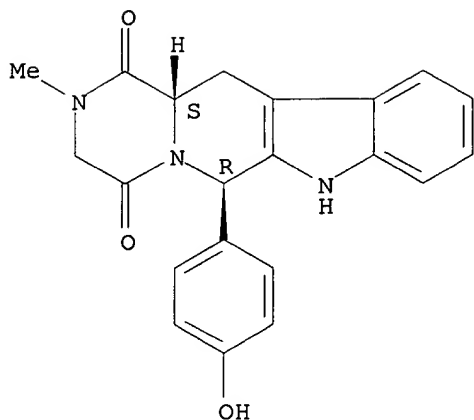
Relative stereochemistry.



RN 171488-66-7 CAPLUS

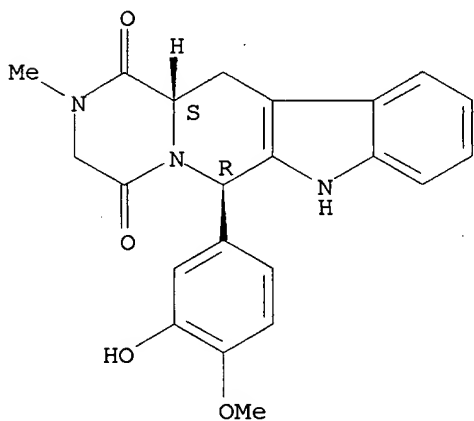
CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
2,3,6,7,12,12a-hexahydro-6-(4-hydroxyphenyl)-2-methyl-, cis- (9CI)
(CA INDEX NAME)

Relative stereochemistry.



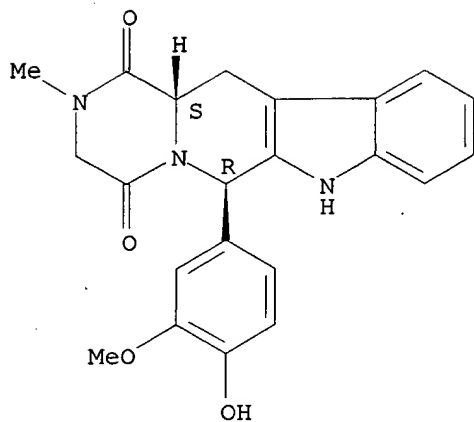
RN 171488-67-8 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 2,3,6,7,12,12a-hexahydro-6-(3-hydroxy-4-methoxyphenyl)-2-methyl-,
 cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 171488-68-9 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 2,3,6,7,12,12a-hexahydro-6-(4-hydroxy-3-methoxyphenyl)-2-methyl-,
 cis- (9CI) (CA INDEX NAME)

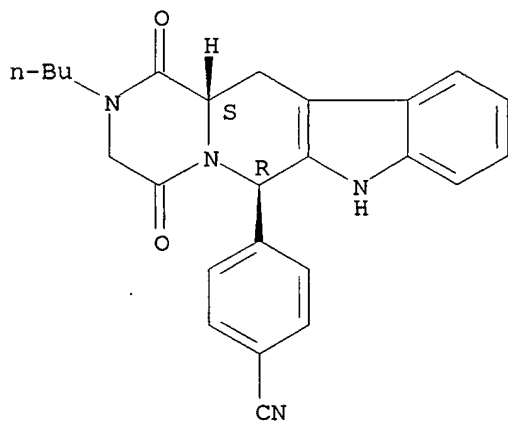
Relative stereochemistry.



RN 171488-69-0 CAPLUS

CN Benzonitrile, 4-(2-butyl-1,2,3,4,6,7,12,12a-octahydro-1,4-dioxopyrazino[1',2':1,6]pyrido[3,4-b]indol-6-yl)-, cis- (9CI) (CA INDEX NAME)

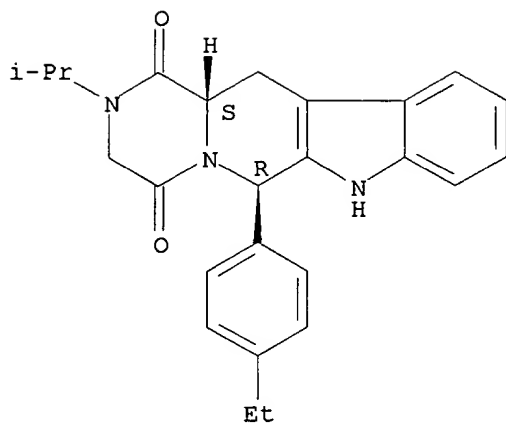
Relative stereochemistry.



RN 171488-70-3 CAPLUS

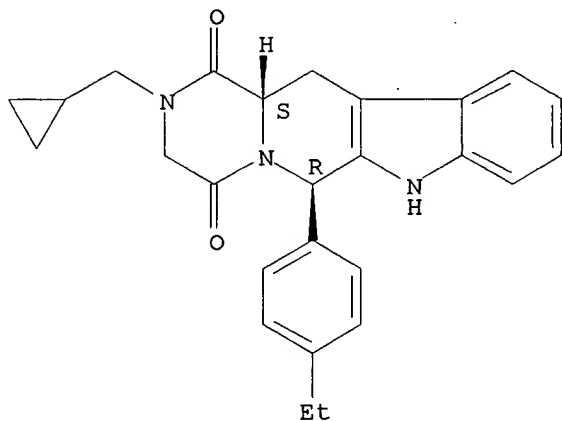
CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione, 6-(4-ethylphenyl)-2,3,6,7,12,12a-hexahydro-2-(1-methylethyl)-, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



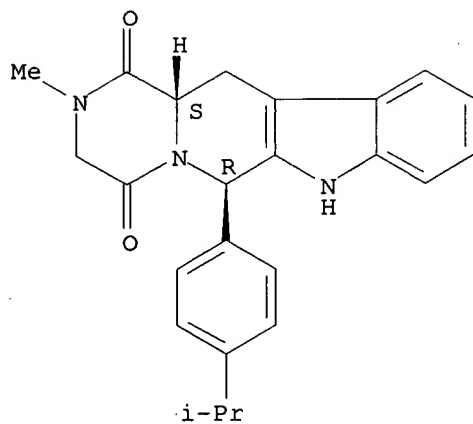
RN 171488-71-4 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 2-(cyclopropylmethyl)-6-(4-ethylphenyl)-2,3,6,7,12,12a-hexahydro-,
 cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 171488-72-5 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 2,3,6,7,12,12a-hexahydro-2-methyl-6-[4-(1-methylethyl)phenyl]-, cis-
 (9CI) (CA INDEX NAME)

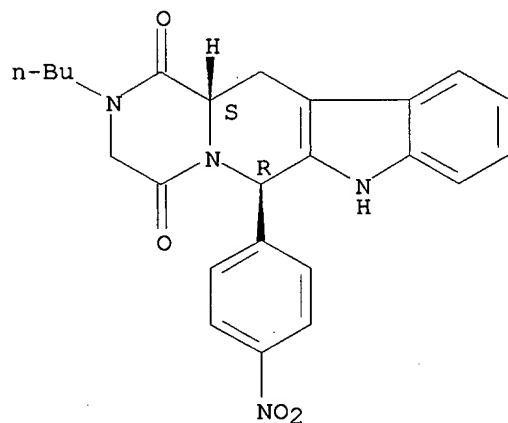
Relative stereochemistry.



RN 171488-73-6 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
2-butyl-2,3,6,7,12,12a-hexahydro-6-(4-nitrophenyl)-, cis- (9CI) (CA
INDEX NAME)

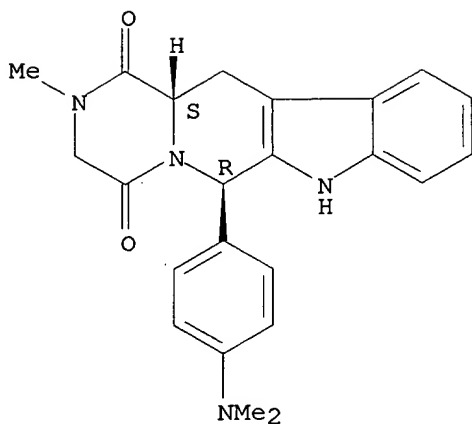
Relative stereochemistry.



RN 171488-74-7 CAPLUS

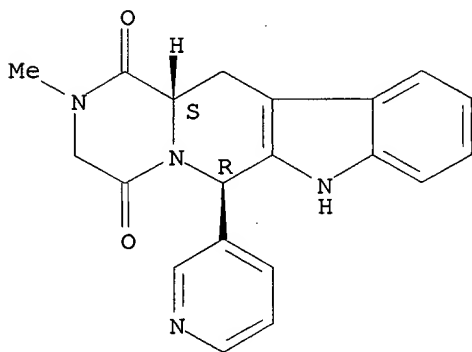
CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
6-[4-(dimethylamino)phenyl]-2,3,6,7,12,12a-hexahydro-2-methyl-, cis-
(9CI) (CA INDEX NAME)

Relative stereochemistry.



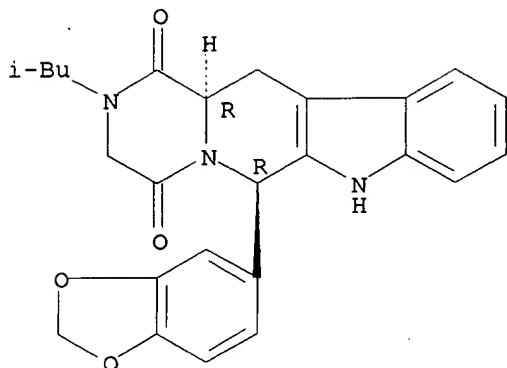
RN 171488-75-8 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 2,3,6,7,12,12a-hexahydro-2-methyl-6-(3-pyridinyl)-, cis- (9CI) (CA
 INDEX NAME)

Relative stereochemistry.



RN 171488-76-9 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 6-(1,3-benzodioxol-5-yl)-2,3,6,7,12,12a-hexahydro-2-(2-methylpropyl)-
 , (6R-trans)- (9CI) (CA INDEX NAME)

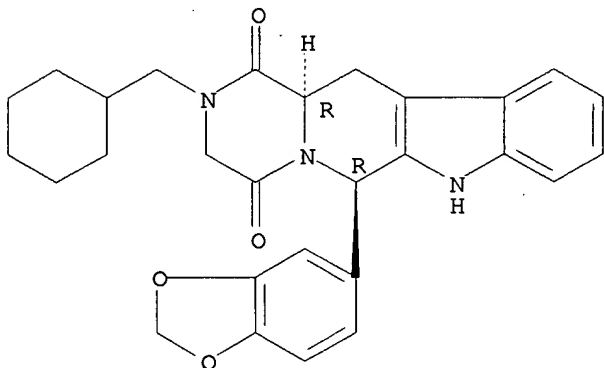
Absolute stereochemistry. Rotation (+).



RN 171488-77-0 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
6-(1,3-benzodioxol-5-yl)-2-(cyclohexylmethyl)-2,3,6,7,12,12a-
hexahydro-, (6R-trans)- (9CI) (CA INDEX NAME)

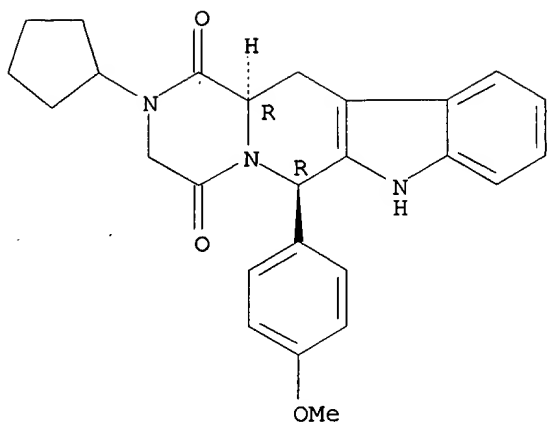
Absolute stereochemistry. Rotation (+).



RN 171488-78-1 CAPLUS

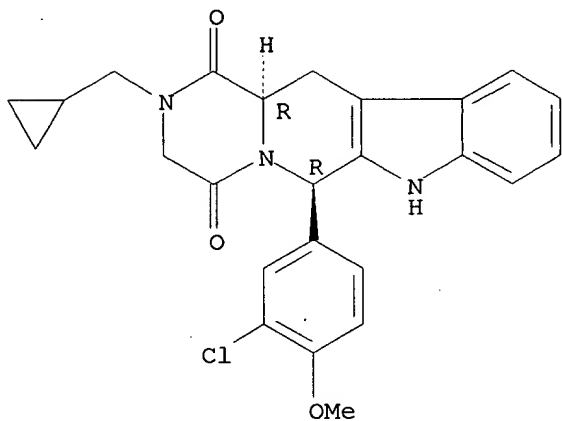
CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
2-cyclopentyl-2,3,6,7,12,12a-hexahydro-6-(4-methoxyphenyl)-,
(6R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



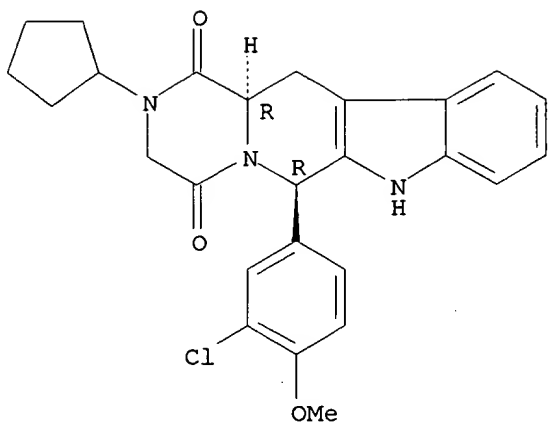
RN 171488-79-2 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 6-(3-chloro-4-methoxyphenyl)-2-(cyclopropylmethyl)-2,3,6,7,12,12a-
 hexahydro-, (6R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



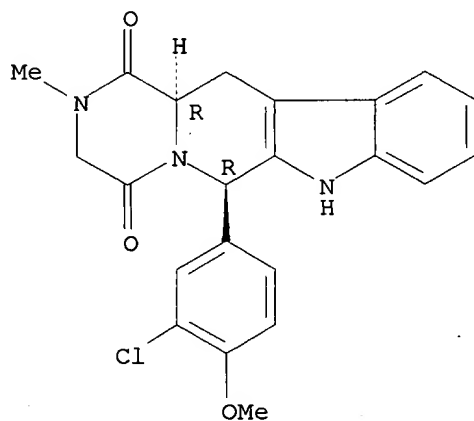
RN 171488-80-5 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 6-(3-chloro-4-methoxyphenyl)-2-cyclopropyl-2,3,6,7,12,12a-hexahydro-
 , (6R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



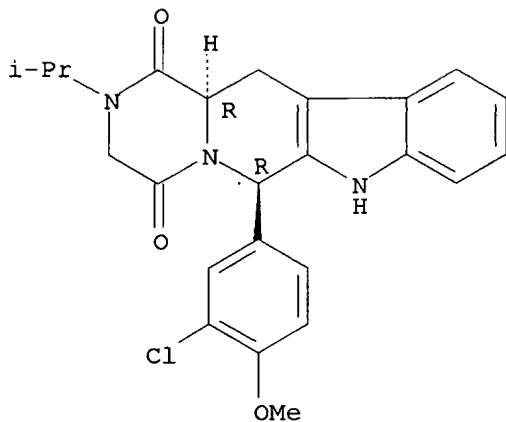
RN 171488-81-6 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 6-(3-chloro-4-methoxyphenyl)-2,3,6,7,12,12a-hexahydro-2-methyl-,
 (6R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

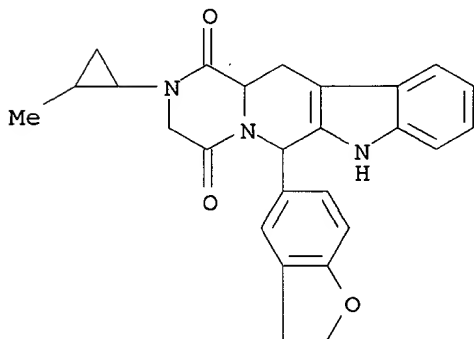


RN 171488-82-7 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 6-(3-chloro-4-methoxyphenyl)-2,3,6,7,12,12a-hexahydro-2-(1-
 methylethyl)-, (6R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

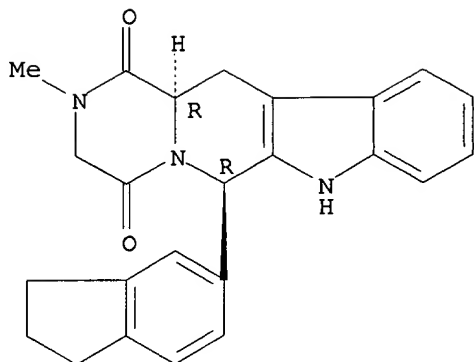


RN 171488-83-8 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 6-(2,3-dihydro-5-benzofuranyl)-2,3,6,7,12,12a-hexahydro-2-(2-
 methylcyclopropyl)- (9CI) (CA INDEX NAME)



RN 171488-84-9 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 6-(2,3-dihydro-1H-inden-5-yl)-2,3,6,7,12,12a-hexahydro-2-methyl-,
 (6R-trans)- (9CI) (CA INDEX NAME)

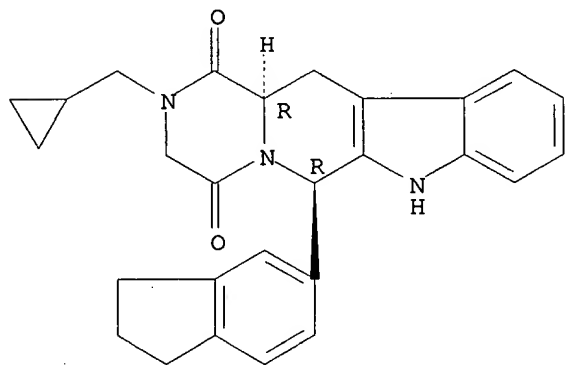
Absolute stereochemistry. Rotation (+).



RN 171488-85-0 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
2-(cyclopropylmethyl)-6-(2,3-dihydro-1H-inden-5-yl)-2,3,6,7,12,12a-
hexahydro-, (6R-trans)- (9CI) (CA INDEX NAME)

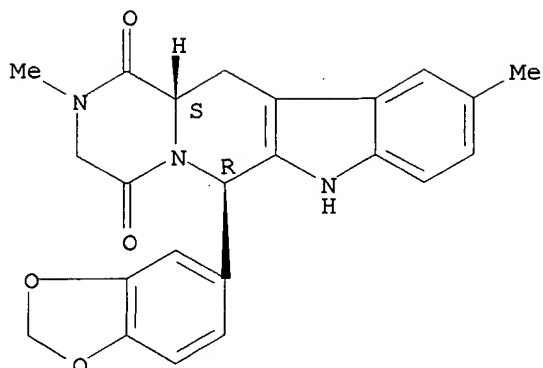
Absolute stereochemistry. Rotation (+).



RN 171488-86-1 CAPLUS

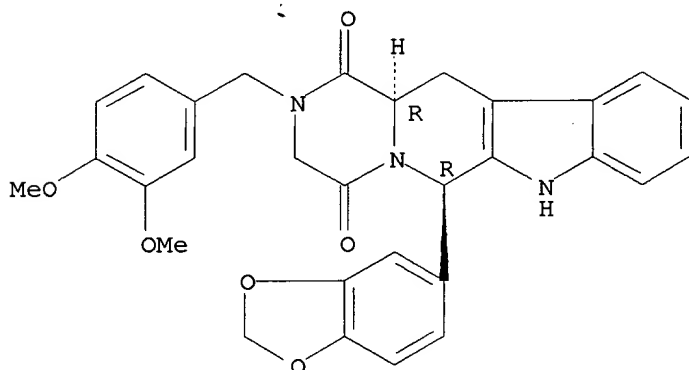
CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
6-(1,3-benzodioxol-5-yl)-2,3,6,7,12,12a-hexahydro-2,10-dimethyl-,
cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



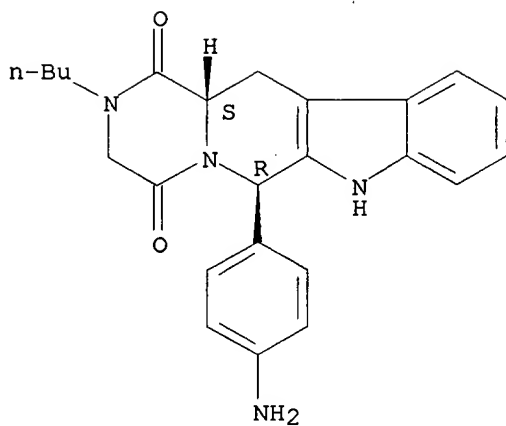
RN 171488-87-2 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 6-(1,3-benzodioxol-5-yl)-2-[(3,4-dimethoxyphenyl)methyl]-
 2,3,6,7,12,12a-hexahydro-, (6R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 171488-88-3 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 6-(4-aminophenyl)-2-butyl-2,3,6,7,12,12a-hexahydro-, cis- (9CI) (CA
 INDEX NAME)

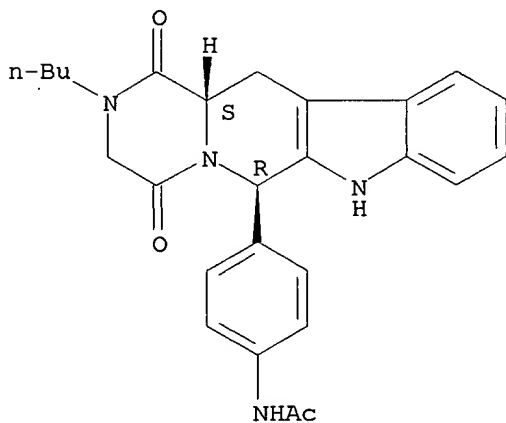
Relative stereochemistry.



RN 171488-89-4 CAPLUS

CN Acetamide, N-[4-(2-butyl-1,2,3,4,6,7,12,12a-octahydro-1,4-dioxopyrazino[1',2':1,6]pyrido[3,4-b]indol-6-yl)phenyl]-, cis- (9CI)
(CA INDEX NAME)

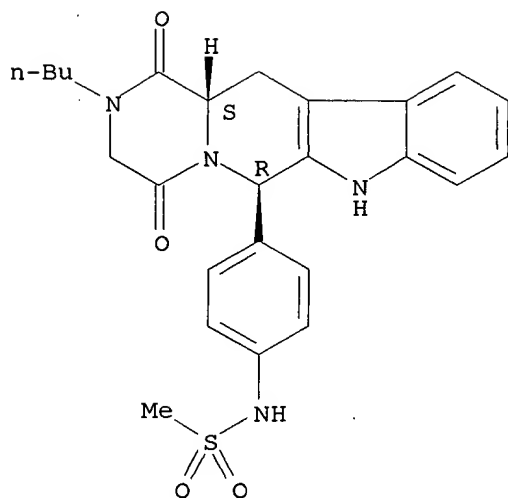
Relative stereochemistry.



RN 171488-90-7 CAPLUS

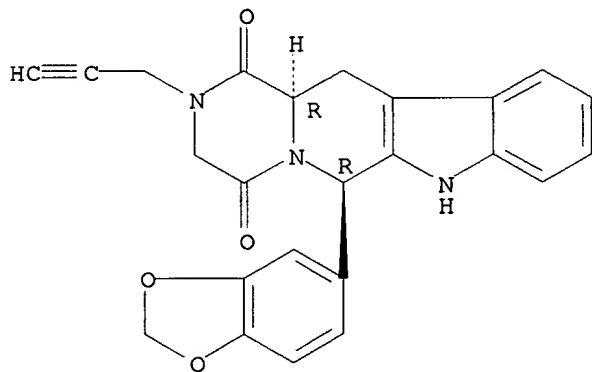
CN Methanesulfonamide, N-[4-(2-butyl-1,2,3,4,6,7,12,12a-octahydro-1,4-dioxopyrazino[1',2':1,6]pyrido[3,4-b]indol-6-yl)phenyl]-, cis- (9CI)
(CA INDEX NAME)

Relative stereochemistry.



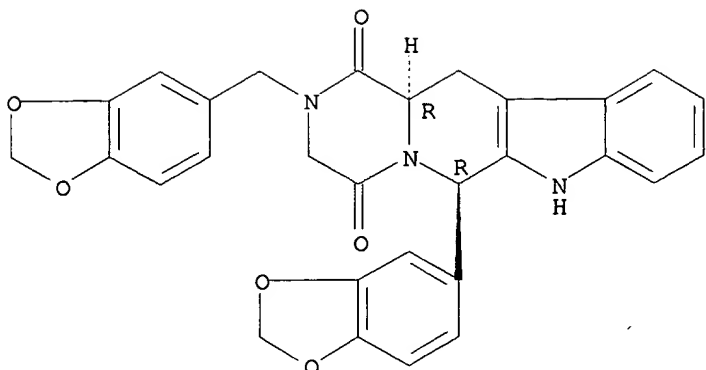
RN	171488-91-8	CAPLUS
CN	Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione, 6-(1,3-benzodioxol-5-yl)-2,3,6,7,12,12a-hexahydro-2-(2-propynyl)-, (6R-trans)- (9CI) (CA INDEX NAME)	

Absolute stereochemistry. Rotation (+).



RN	171488-92-9	CAPLUS
CN	Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione, 6-(1,3-benzodioxol-5-yl)-2-(1,3-benzodioxol-5-ylmethyl)- 2,3,6,7,12,12a-hexahydro-, (6R-trans)- (9CI) (CA INDEX NAME)	

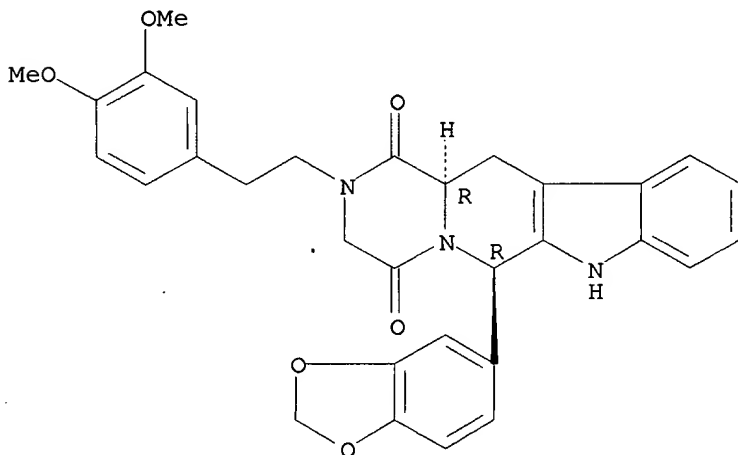
Absolute stereochemistry. Rotation (+).



RN 171488-93-0 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
6-(1,3-benzodioxol-5-yl)-2-[2-(3,4-dimethoxyphenyl)ethyl]-
2,3,6,7,12,12a-hexahydro-, (6R-trans)- (9CI) (CA INDEX NAME)

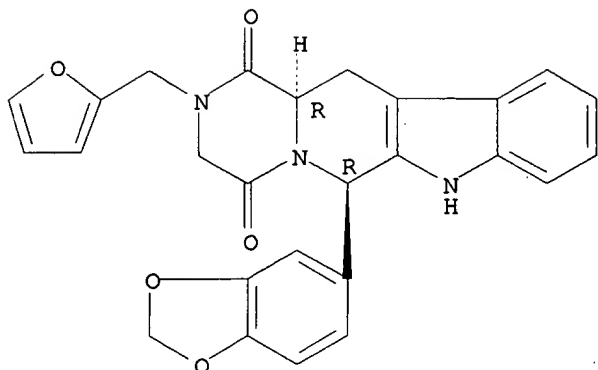
Absolute stereochemistry. Rotation (+).



RN 171488-94-1 CAPLUS

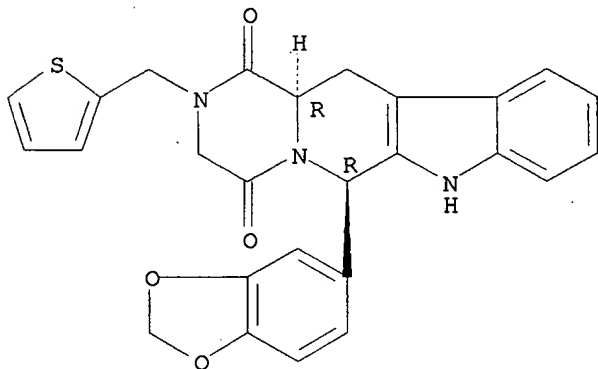
CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
6-(1,3-benzodioxol-5-yl)-2-(2-furanylmethyl)-2,3,6,7,12,12a-
hexahydro-, (6R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



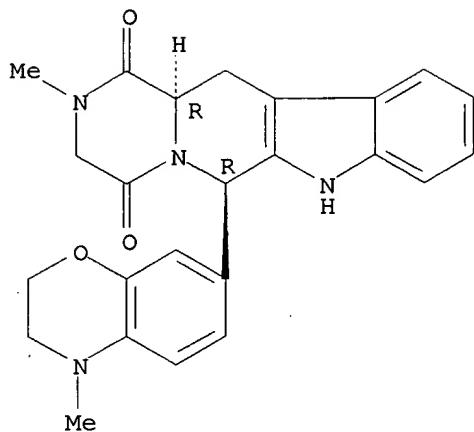
RN 171488-95-2 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 6-(1,3-benzodioxol-5-yl)-2,3,6,7,12,12a-hexahydro-2-(2-
 thienylmethyl)-, (6R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 171488-96-3 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 6-(3,4-dihydro-4-methyl-2H-1,4-benzoxazin-7-yl)-2,3,6,7,12,12a-
 hexahydro-2-methyl-, (6R-trans)- (9CI) (CA INDEX NAME)

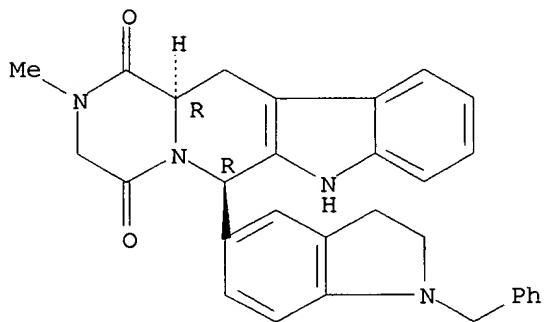
Absolute stereochemistry. Rotation (+).



RN 171488-97-4 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
6-[2,3-dihydro-1-(phenylmethyl)-1H-indol-5-yl]-2,3,6,7,12,12a-
hexahydro-2-methyl-, (6R-trans)- (9CI) (CA INDEX NAME)

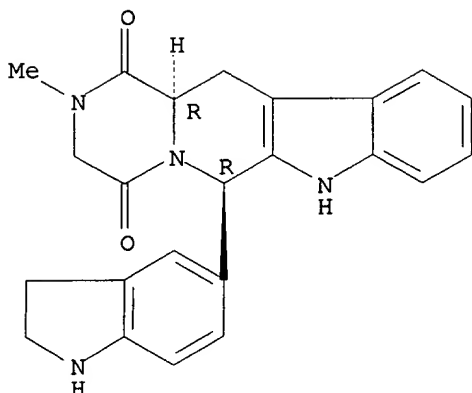
Absolute stereochemistry. Rotation (+).



RN 171488-98-5 CAPLUS

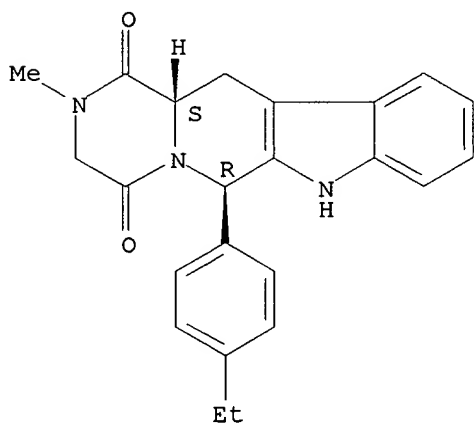
CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
6-(2,3-dihydro-1H-indol-5-yl)-2,3,6,7,12,12a-hexahydro-2-methyl-,
(6R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



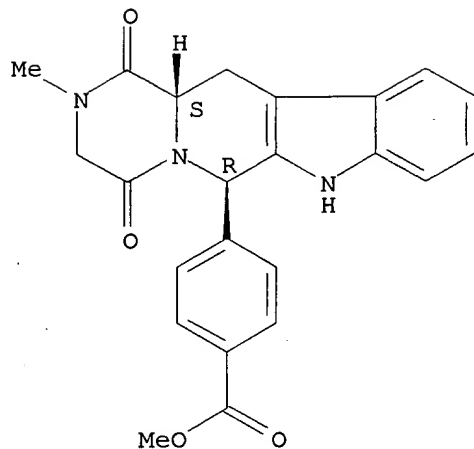
RN 171488-99-6 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 6-(4-ethylphenyl)-2,3,6,7,12,12a-hexahydro-2-methyl-, cis- (9CI)
 (CA INDEX NAME)

Relative stereochemistry.



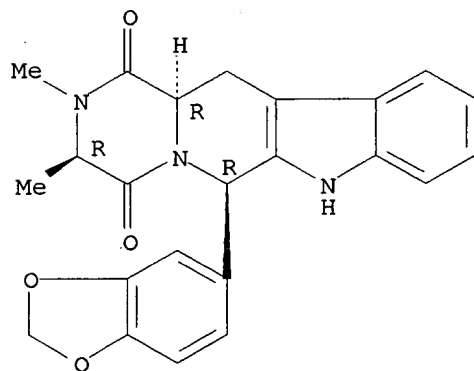
RN 171489-00-2 CAPLUS
 CN Benzoic acid, 4-(1,2,3,4,6,7,12,12a-octahydro-2-methyl-1,4-
 dioxopyrazino[1',2':1,6]pyrido[3,4-b]indol-6-yl)-, methyl ester,
 cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



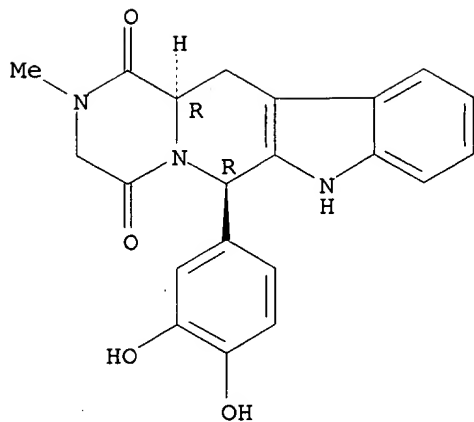
RN 171489-02-4 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 6-(1,3-benzodioxol-5-yl)-2,3,6,7,12,12a-hexahydro-2,3-dimethyl-,
 [3R-(3.alpha.,6.alpha.,12a.beta.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 171489-03-5 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 6-(3,4-dihydroxyphenyl)-2,3,6,7,12,12a-hexahydro-2-methyl-,
 (6R-trans)- (9CI) (CA INDEX NAME)

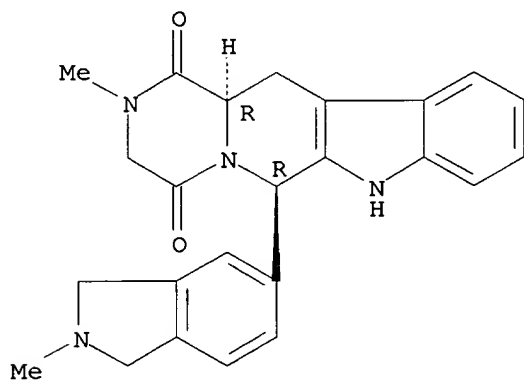
Absolute stereochemistry. Rotation (+).



RN 171489-04-6 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
6-(2,3-dihydro-2-methyl-1H-indol-5-yl)-2,3,6,7,12,12a-hexahydro-2-
methyl-, (6R-trans)- (9CI) (CA INDEX NAME)

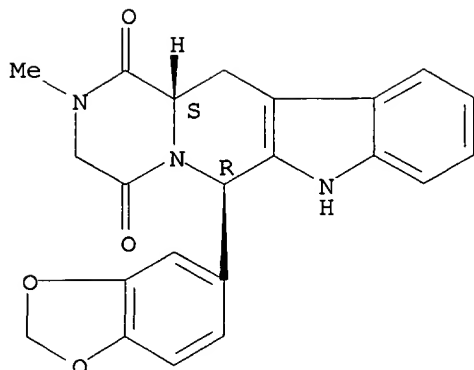
Absolute stereochemistry. Rotation (+).



RN 171596-27-3 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
6-(1,3-benzodioxol-5-yl)-2,3,6,7,12,12a-hexahydro-2-methyl-,
(6R-cis)- (9CI) (CA INDEX NAME)

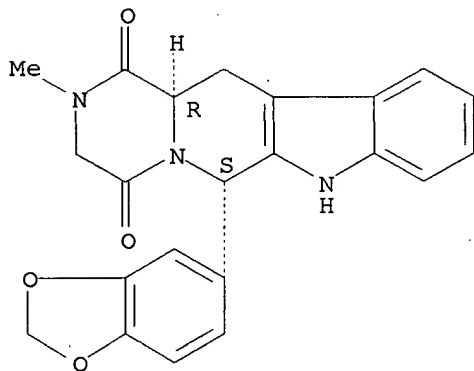
Absolute stereochemistry. Rotation (-).



RN 171596-28-4 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
6-(1,3-benzodioxol-5-yl)-2,3,6,7,12,12a-hexahydro-2-methyl-,
(6S-cis)- (9CI) (CA INDEX NAME)

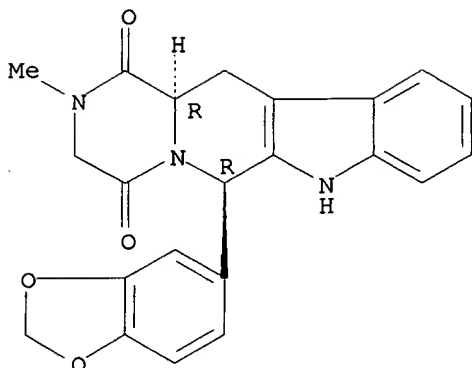
Absolute stereochemistry. Rotation (+).



RN 171596-29-5 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
6-(1,3-benzodioxol-5-yl)-2,3,6,7,12,12a-hexahydro-2-methyl-,
(6R-trans)- (9CI) (CA INDEX NAME)

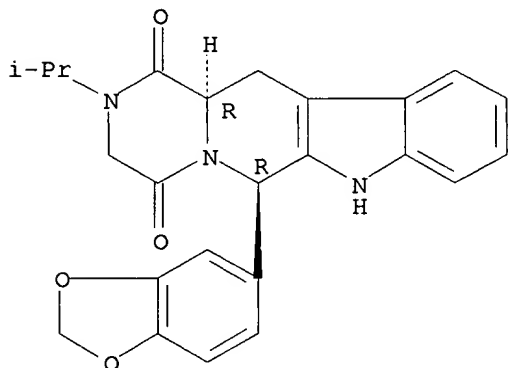
Absolute stereochemistry. Rotation (+).



RN 171596-30-8 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
6-(1,3-benzodioxol-5-yl)-2,3,6,7,12,12a-hexahydro-2-(1-methylethyl)-
, (6R-trans)- (9CI) (CA INDEX NAME)

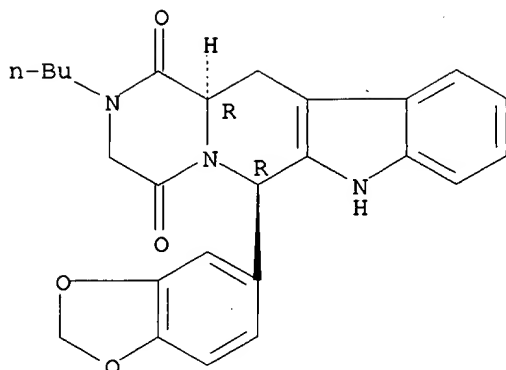
Absolute stereochemistry. Rotation (+).



RN 171596-31-9 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
6-(1,3-benzodioxol-5-yl)-2-butyl-2,3,6,7,12,12a-hexahydro-,
(6R-trans)- (9CI) (CA INDEX NAME)

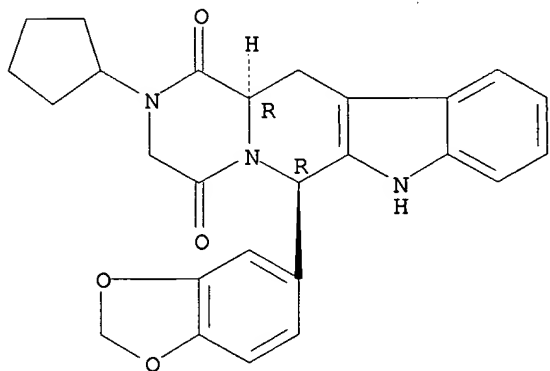
Absolute stereochemistry. Rotation (+).



RN 171596-32-0 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
6-(1,3-benzodioxol-5-yl)-2-cyclopentyl-2,3,6,7,12,12a-hexahydro-,
(6R-trans)- (9CI) (CA INDEX NAME)

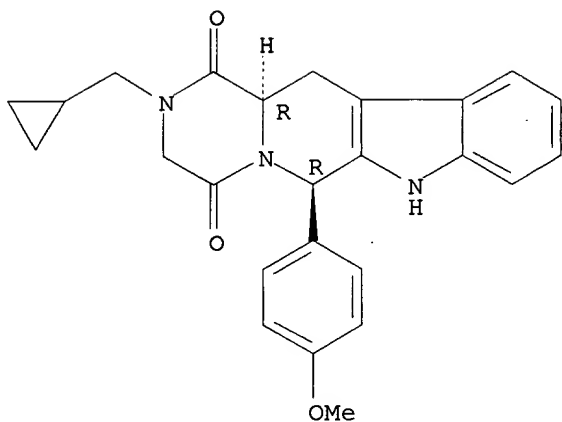
Absolute stereochemistry. Rotation (+).



RN 171596-33-1 CAPLUS

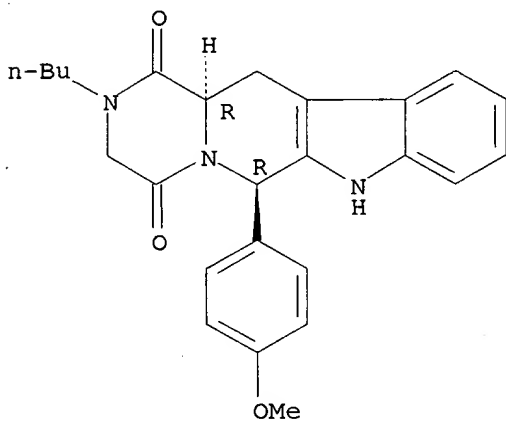
CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
2-(cyclopropylmethyl)-2,3,6,7,12,12a-hexahydro-6-(4-methoxyphenyl)-,
(6R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



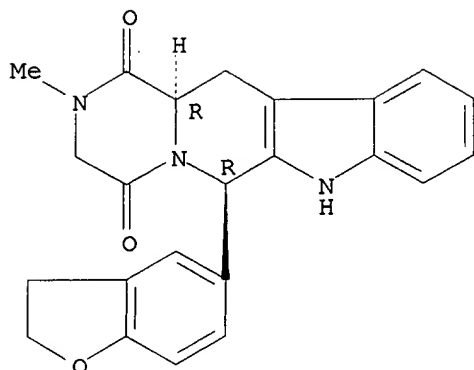
RN 171596-34-2 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 2-butyl-2,3,6,7,12,12a-hexahydro-6-(4-methoxyphenyl)-, (6R-trans)-
 (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



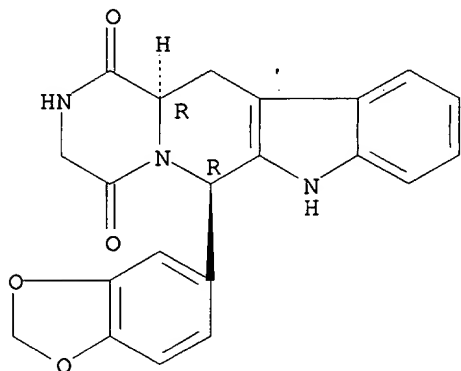
RN 171596-35-3 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 6-(2,3-dihydro-5-benzofuranyl)-2,3,6,7,12,12a-hexahydro-2-methyl-,
 (6R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



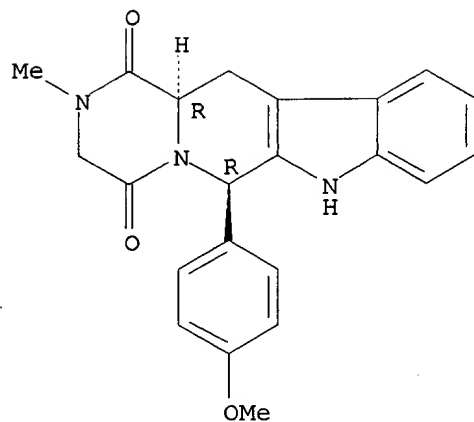
RN 171596-36-4 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 6-(1,3-benzodioxol-5-yl)-2,3,6,7,12,12a-hexahydro-, (6R-trans)-
 (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



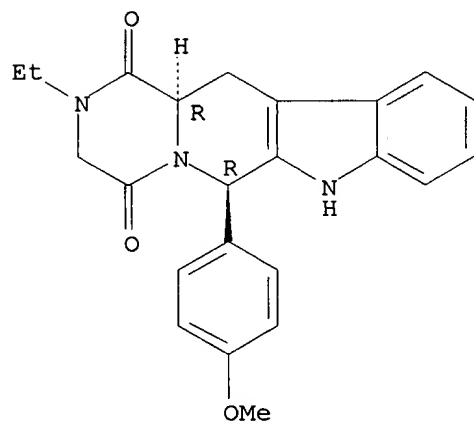
RN 171596-37-5 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 2,3,6,7,12,12a-hexahydro-6-(4-methoxyphenyl)-2-methyl-, (6R-trans)-
 (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



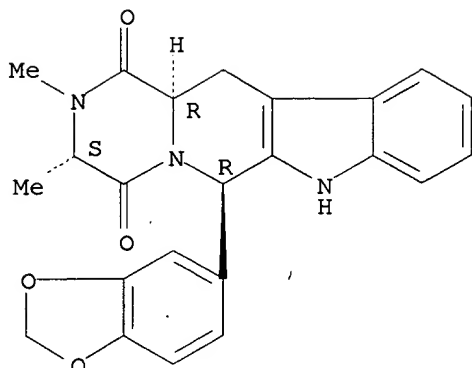
RN 171596-38-6 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 2-ethyl-2,3,6,7,12,12a-hexahydro-6-(4-methoxyphenyl)-, (6R-trans)-
 (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 171596-40-0 CAPLUS
 CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 6-(1,3-benzodioxol-5-yl)-2,3,6,7,12,12a-hexahydro-2,3-dimethyl-,
 [3S-(3.alpha.,6.beta.,12a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



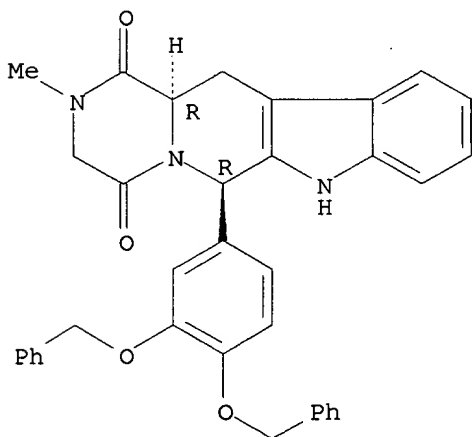
IT 171489-68-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. of pyrazinopyridoindoleiones as inhibitors of cyclic
guanosine monophosphate specific phosphodiesterase)

RN 171489-68-2 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
6-[3,4-bis(phenylmethoxy)phenyl]-2,3,6,7,12,12a-hexahydro-2-methyl-,
(6R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L4 ANSWER 5 OF 14 CAPLUS COPYRIGHT 1997 ACS

ACCESSION NUMBER: 1990:631336 CAPLUS

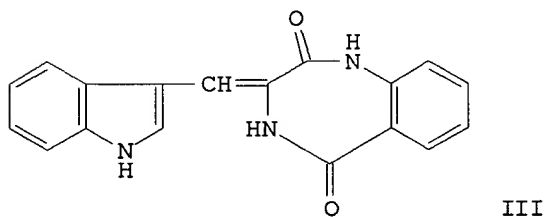
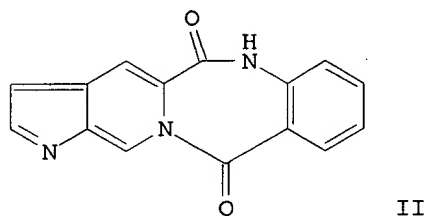
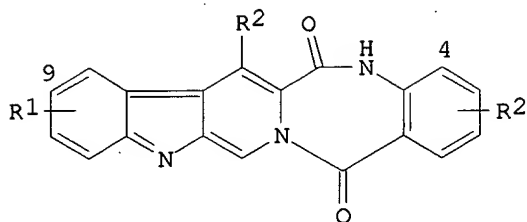
DOCUMENT NUMBER: 113:231336

TITLE: Synthesis of .beta.-carboline-benzodiazepine
hybrid molecules and their amputated analogs as
novel ligands of the benzodiazepine receptor

AUTHOR(S): Dellouve-Courillon, Christine; Dorey, Gilbert;
Poissonnet, Guillaume; Doisy, Xavier; Potier,
Pierre; Dodd, Robert H.

CORPORATE SOURCE: Inst. Chim. Subst. Nat., CNRS, Gif-sur-Yvette,
91198, Fr.

SOURCE: Tetrahedron (1990), 46(9), 3245-66
 CODEN: TETRAB; ISSN: 0040-4020
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 GI



AB The title compds. I (R = 2-Cl, 3-Cl, 4-Cl, 4-OMe, R1 = R2 = H; R = R2 = H, R1 = H, 10-OMe, 9-OCH2Ph; R = R1 = H, R2 = OEt; R = H, R1 = 9-OCH2Ph, R2 = OCH2OMe) and the analogs II and (E)- and (Z)-III were prepd. Only I (R = H, 2-Cl, R1 = R2 = H) showed high affinity for the benzodiazepine receptor. II and III showed no significant binding activity.

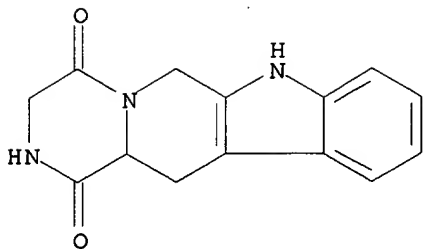
IT **130473-22-2P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
 (prepn. and oxidn. of)

RN 130473-22-2 CAPLUS

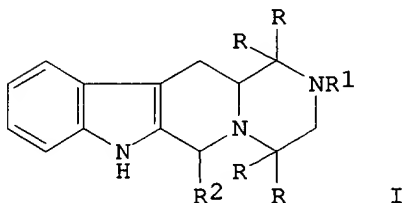
CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
 2,3,6,7,12,12a-hexahydro-, (.+-.)- (9CI) (CA INDEX NAME)

Racemate.



L4 ANSWER 6 OF 14 CAPLUS COPYRIGHT 1997 ACS
 ACCESSION NUMBER: 1977:171497 CAPLUS
 DOCUMENT NUMBER: 86:171497
 TITLE: Tetracyclic compounds
 PATENT ASSIGNEE(S): Council of Scientific and Industrial Research
 (India), India
 SOURCE: Brit., 9 pp.
 CODEN: BRXXAA

	NUMBER	DATE
PATENT INFORMATION:	GB 1454171	761027
APPLICATION INFORMATION:	GB 73-44002	<u>731019</u>
DOCUMENT TYPE:	Patent	
LANGUAGE:	English	
GI		



AB Thirty-one 2-substituted 1,2,3,4,6,7,12,12a-octahydropyrazino[1',2':1,6]pyrido[3,4-b]indoles I [R = H, R2 = O; R1 = aroylalkyl, arylhydroxyalkyl, hydroxyalkyl, oxoalkyl, aminoalkyl, Me, PhCH2CO, Ph(CH2)2, benzodioxanylmethyl, PhOCH(OH)CH2, NC(CH2)2, HO2C(CH2)2, EtO2C(CH2)2; R2 = H, Me] were prepd. from alkyl 1,2,3,4-tetrahydro-9H-pyrido[3,4-b]indole-3-carboxylates by 2 main methods. The 1st involved successive acid-catalyzed condensation with ethylenimine (II), (if necessary) LiAlH4 redn., and introduction of 2-substituents. The 2nd involved successive treatment with haloacetyl halides and primary amines. Thus, I [R = R2 = H, R1 = p-FC6H4CO(CH2)3] (III) was prepd. from Me 1,2,3,4-tetrahydro-9H-pyrido[3,4-b]indole-3-carboxylate (IV) by refluxing with IV.HCl and II in EtOH 48 h followed by LiAlH4 redn. in THF and treatment with p-FC6H4CO(CH2)3Cl in DMF contg. Na2CO3 and NaI 36 h at 80.degree.. I show strong tranquilizing and hypotensive activity. Animal tests on III are reported; III had LD50 values in

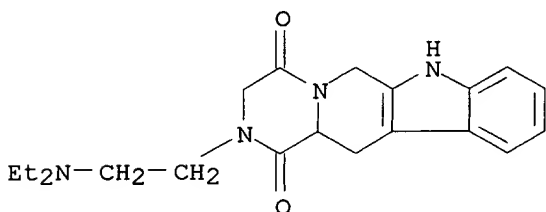
mice of 180 mg/kg i.p. and >1 g orally. III also shows antiemetic activity.

IT **55344-32-6P**

RL: SPN (Synthetic preparation); PREP (Preparation)
(tranquilizers and hypotensive agent, prepn. of)

RN 55344-32-6 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
2-[2-(diethylamino)ethyl]-2,3,6,7,12,12a-hexahydro- (9CI) (CA INDEX
NAME)



L4 ANSWER 7 OF 14 CAPLUS COPYRIGHT 1997 ACS

ACCESSION NUMBER: 1976:405673 CAPLUS

DOCUMENT NUMBER: 85:5673

TITLE: 2-Substituted-1,2,3,4,6,7,12,12a-
octahydropyrazino-[2',1':6,1]pyrido[3,4-
b]indoles

INVENTOR(S): Saxena, Anil K.; Jain, Padam C.; Dua, Prithvi
R.; Srimal, Rikhab C.; Dhawan, Bhola N.; Anand,
Nitya; Singh, Gurbuksh

PATENT ASSIGNEE(S): Council of Scientific and Industrial Research
(India), India

SOURCE: Can., 25 pp.
CODEN: CAXXA4

	NUMBER	DATE
PATENT INFORMATION:	CA 982132	760120
APPLICATION INFORMATION:	CA 73-172016	730523
DOCUMENT TYPE:	Patent	
LANGUAGE:	English	

GI For diagram(s), see printed CA Issue.

AB About 30 pyrazinopyridoindoles I (R = H, p-FC₆H₄CO(CH₂)₃, Me, 2-(4-pyridyl)ethyl, Et₂NCH₂CH₂, PhCH₂CO, EtO₂CCH₂CH₂, MeCOCH₂CH₂, etc.; R₁ = H, Me; X = H₂) were prepd. from II. Thus II (R₁ = H) was treated with ethylenimine and the I (R = R₁ = H, X = O) reduced with LiAlH₄ to give I (R = R₁ = H, X = H₂), which was treated with Cl(CH₂)₃COC₆H₄F-p to give I [R = p-FC₆H₄CO(CH₂)₃, R₁ = H, X = H₂] (III). The depressant ED50 of III was 0.5 mg/kg in the amphetamine hyperactivity test (i.p. mice).

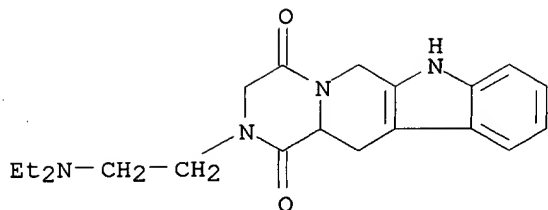
IT **55344-32-6P**

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 55344-32-6 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
2-[2-(diethylamino)ethyl]-2,3,6,7,12,12a-hexahydro- (9CI) (CA INDEX

NAME)



L4 ANSWER 8 OF 14 CAPLUS COPYRIGHT 1997 ACS

ACCESSION NUMBER: 1976:164842 CAPLUS

DOCUMENT NUMBER: 84:164842

TITLE: 2-Substituted-1,2,3,4,6,7,12,12a-octahydropyrazino[2',1':6,1]pyrido[3,4-b]indoles

INVENTOR(S): Saxena, Anil K.; Jain, Padam C.; Singh, Gurbuksh; Dua, Prithvi R.; Srimal, Rikhab C.; Dhawan, Bhola N.; Anand, Nitya

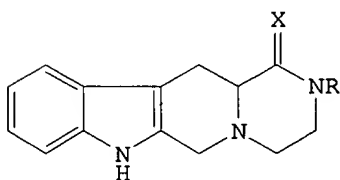
PATENT ASSIGNEE(S): Council of Scientific and Industrial Research (India), India

SOURCE: U.S., 6 pp.

CODEN: USXXAM

	NUMBER	DATE
PATENT INFORMATION:	US 3917599	751104
APPLICATION INFORMATION:	US 73-346468	730330
DOCUMENT TYPE:	Patent	
LANGUAGE:	English	

GI



I

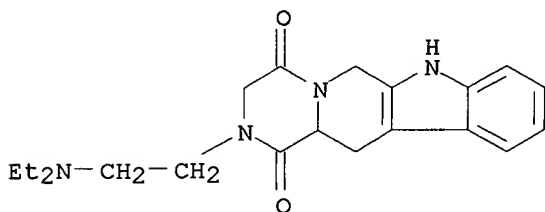
AB Me 1,2,3,4-tetrahydro-9H-pyrido[3,4-b]indole-3-carboxylate was cyclized with ethylenimine to give the pyrazinopyridoindole I (R = H, X = O), which was reduced and alkylated to give I (R = Me. PhCH₂CO, p-FC₆H₄CO(CH₂)₃, 4-pyridylethyl, etc., X = H₂). At 2.5-35 mg/kg I [R = p-FC₆H₄CO(CH₂)₃, X = H₂] (II) reduced spontaneous motor activity of mice in several tests. The LD₅₀ of II was 180 mg/kg, i.p. in mice.

IT 55344-32-6P

RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)

RN 55344-32-6 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
2-[2-(diethylamino)ethyl]-2,3,6,7,12,12a-hexahydro- (9CI) (CA INDEX
NAME)



L4 ANSWER 9 OF 14 CAPLUS COPYRIGHT 1997 ACS

ACCESSION NUMBER: 1975:171057 CAPLUS

DOCUMENT NUMBER: 82:171057

TITLE: 1,2,3,4,6,7,12,12a-Octahydropyrazino[2,1:6,1]pyr
ido[3,4-b]indole depressants

INVENTOR(S): Saxena, Anil K.; Jain, Padam C.; Singh,
Gurbukhsh; Dua, Prithvi R.; Srimal, Rikhab C.;
Dhawan, Bhola N.; Anand, Nitya

PATENT ASSIGNEE(S): Gruppo Lepetit S.p.A.

SOURCE: Fr. Demande, 16 pp.

CODEN: FRXXBL

	NUMBER	DATE
PATENT INFORMATION:	FR 2223013	741025
PRIORITY APPLN. INFO.:	US 73-346408	730330
DOCUMENT TYPE:	Patent	
LANGUAGE:	French	

GI For diagram(s), see printed CA Issue.

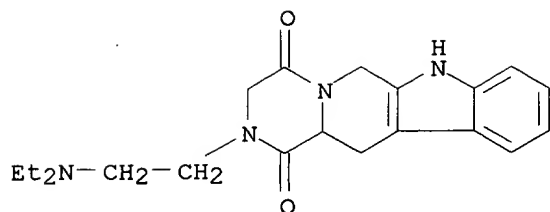
AB Pyrazinopyridoindoles I (R = oxoalkyl, hydroxyalkyl, aminoalkyl etc;
X = H₂, O; R₁ = H, Me) (34 compds.) were prepd. for use as central
nervous system depressants. Thus Me 1,2,3,4-tetrahydro-9H-
pyrido[3,4-b]indole-3-carboxylate was treated with ethylenimine and
reduced with LiAlH₄ to give I (X = H₂, R = R₂ = H), which was
treated with p-FC₆H₄CO(CH₂)₃Cl to give I (X = H₂, R =
(CH₂)₃COC₆H₄F-4, R₁ = H). The latter compd. had a ED₅₀ in the
Rotarod test in mice of 5.9 mg/kg i.p.

IT **55344-32-6P**

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 55344-32-6 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
2-[2-(diethylamino)ethyl]-2,3,6,7,12,12a-hexahydro- (9CI) (CA INDEX
NAME)



L4 ANSWER 10 OF 14 CAPLUS COPYRIGHT 1997 ACS

ACCESSION NUMBER: 1975:156373 CAPLUS

DOCUMENT NUMBER: 82:156373

TITLE: 2-Substituted 1,2,3,4,6,7,12,12a-octahydropyrazino[2',1':6,1]pyrido[3,4-d]indole

INVENTOR(S): Saxena, Anil K.; Jain, Padam C.; Singh, Gurbakhsh; Dua, Fritzvi R.; Srimal, Rikhab C.; Dhawan, Bhola N.; Anand, Nitya

PATENT ASSIGNEE(S): Council of Scientific and Industrial Research (India)

SOURCE: Ger. Offen., 21 pp.
CODEN: GWXXBX

	NUMBER	DATE
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PATENT INFORMATION:	DE 2333922	750130
APPLICATION INFORMATION:	DE 73-2333922	730704
DOCUMENT TYPE:	Patent	
LANGUAGE:	German	

GI For diagram(s), see printed CA Issue.

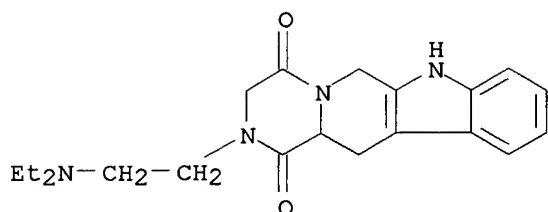
AB Approx. 30 central nervous system depressants (I, R1 = e.g., H, Me, CH₂CH₂Ph, 4-pyridylethyl, CH₂COC₆H₄F-p; R2 = H, Me; Y, Z = O, H₂) were prepd. via cycloaddn. of II with ethylenimine (III) or ClCH₂COCl and amines followed by redn. with LiAlH₄. Thus, II was refluxed with III in EtOH for 24 hr to give I (R1 = R2 = H, Y = O, Z = H₂) which was reduced with LiAlH₄ in refluxing THF for 48 hr and treated with p-FC₆H₄CO(CH₂)₃Cl to yield I [R1 = (CH₂)₃COC₆H₄F-p, R3 = H, Y = Z = H₂] (IV). IV has i.p. LD₅₀ = 180 mg/kg in mice and orally LD₅₀ = 700 mg/kg in rats.

IT **55344-32-6P**

RL: SPN (Synthetic preparation); PREP (Preparation)
(depressant, prepn. of)

RN 55344-32-6 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
2-[2-(diethylamino)ethyl]-2,3,6,7,12,12a-hexahydro- (9CI) (CA INDEX NAME)



L4 ANSWER 11 OF 14 CAPLUS COPYRIGHT 1997 ACS

ACCESSION NUMBER: 1973:461395 CAPLUS

DOCUMENT NUMBER: 79:61395

TITLE: Agents acting on the central nervous system.

15. 2-Substituted 1,2,3,4,6,7,12,12a-octahydropyrazino [2',1':6,1]pyrido[3,4-b]indoles. New class of central nervous system depressants

AUTHOR(S): Saxena, Anil K.; Jain, Padam C.; Anand, Nitya; Dua, P. R.

CORPORATE SOURCE: Div. Med. Chem., Cent. Drug Res. Inst., Lucknow, India

SOURCE: J. Med. Chem. (1973), 16(5), 560-4
CODEN: JMCMAR

DOCUMENT TYPE: Journal

LANGUAGE: English

AB 2-[4-(4-Fluorophenyl)-4-oxobutyl]-1,2,3,4,6,7,12,12a-octahydropyrazino[2',1':6,1]pyrido[3,4-b]indole (I) [41510-23-0] and related compds. showed depressent properties in rats and mice. I produced 60% inhibition of amphetamine-induced hyperactivity in mice at 0.6 mg/kg i.p., decreased forced motor activity in mice by 50% at 7.5 mg/kg i.p., produced 50% inhibition of conditioned avoidance responses in rats at 0.15 mg/kg i.p., and counteracted amphetamine toxicity in mice by 50% at 3.5 mg/kg i.p., and was thus more potent than chlorpromazine. 2-[4-(4-Fluorophenyl)-4-hydroxybutyl]-1,2,3,4,6,7,12,12a-octahydropyrazinol[2',1':6,1]pyrido[3,4-b]indole [41510-24-1], and 2-(3-hydroxybutyl)-1,2,3,4,6,7,12,12a-octahydropyrazino[2',1':6,1]pyrido[3,4-b]indole [41510-25-2] were also highly active depressants. I was prepd. by converting the known dl-1,2,3,4-tetrahydro-9H-pyrido[3,4-b]indole-3-carboxylic acid [41509-88-0] to the Me ester, reacting with ethyleneimine [151-56-4] to yield dl-1-oxo-1,2,3,4,6,7,12,12a-octahydropyrazino[2,1':6,1]pyrido[3,4-b]indole [41509-89-1], reducing the keto group with LiAlH₄, and reacting at N-2 with the appropriate chloride.

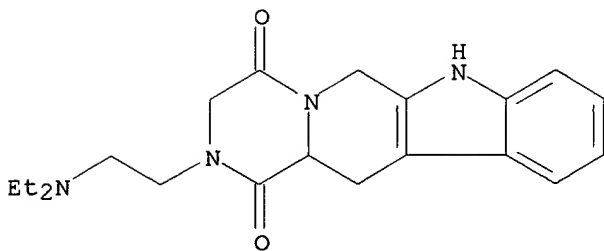
IT 42021-19-2P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 42021-19-2 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
2-[2-(diethylamino)ethyl]-2,3,6,7,12,12a-hexahydro-, (.+-.)- (9CI)
(CA INDEX NAME)

Racemate.



L4 ANSWER 12 OF 14 CAPLUS COPYRIGHT 1997 ACS
 ACCESSION NUMBER: 1973:147995 CAPLUS
 DOCUMENT NUMBER: 78:147995
 TITLE: 1,2,3,4,6,7,12,12a-Octahydro-2-phenylpyrazino[2',1':6,1]pyrido[3,4-b]indoles and its intermediates
 INVENTOR(S): Schulenberg, John W.
 PATENT ASSIGNEE(S): Sterling Drug Inc.
 SOURCE: U.S., 9 pp. Division of U.S. 3,644,384 (CA 76;140890j).
 CODEN: USXXAM

	NUMBER	DATE
PATENT INFORMATION:	US 3717638	730220
APPLICATION INFORMATION:	US 69-831750	690609
DOCUMENT TYPE:	Patent	
LANGUAGE:	English	

GI For diagram(s), see printed CA Issue.

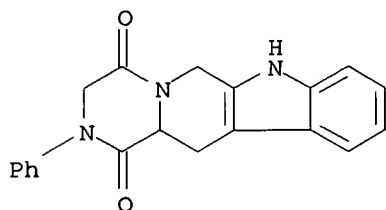
AB The pyrido[3,4-b]indole-3-carboxylate (I, R = H) was treated with ClCH₂COCl to give I (R = COCH₂Cl), which was treated with PhNH₂ to give the pyrazino[2',1':6,1]pyrido[3,4-b]indole II (X = O). I (X = O) was reduced with LiAlH₄ to give II (X = H₂). II were psychomotor stimulants at 8-300 mg/kg.

IT **25478-29-9P**

RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)

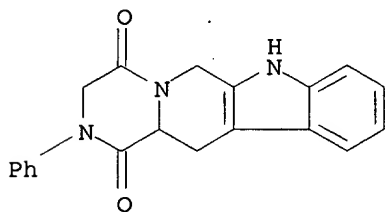
RN 25478-29-9 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione, 2,3,6,7,12,12a-hexahydro-2-phenyl- (8CI, 9CI) (CA INDEX NAME)



ACCESSION NUMBER: 1972:140890 CAPLUS
 DOCUMENT NUMBER: 76:140890
 TITLE: 2-(.alpha.-Haloacetyl)-1,2,3,4-tetrahydro-9H-pyrido[3,4-b]indole-3-carboxylates and derivatives having useful psychomotorstimulant properties
 INVENTOR(S): Schulenberg, John W.
 PATENT ASSIGNEE(S): Sterling Drug Inc.
 SOURCE: U.S., 7 pp.
 CODEN: USXXAM

	NUMBER	DATE
	-----	-----
PATENT INFORMATION:	US 3644384	720222
APPLICATION INFORMATION:	US 69-831750	690609
DOCUMENT TYPE:	Patent	
LANGUAGE:	English	
GI	For diagram(s), see printed CA Issue.	
AB	Acylation of I (R = H) with ClCH ₂ COCl in CHCl ₃ gave I (R = ClCH ₂ CO), which with PhNH ₂ in EtOCH ₂ CH ₂ OH gave II. Redn. of II by LiAlH ₄ in THF gave III. II showed psychomotor depressant activity in mice; III was a psychomotor stimulant.	
IT	25478-29-9P	
	RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)	
RN	25478-29-9 CAPLUS	
CN	Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione, 2,3,6,7,12,12a-hexahydro-2-phenyl- (8CI, 9CI) (CA INDEX NAME)	



L4 ANSWER 14 OF 14 CAPLUS COPYRIGHT 1997 ACS
 ACCESSION NUMBER: 1970:55396 CAPLUS
 DOCUMENT NUMBER: 72:55396
 TITLE: 1,2,3,4,6,7,12,12a-Octahydro-2-phenylpyrazino[2',1':6,1]pyrido[3,4-b]indole
 AUTHOR(S): Schulenberg, John W.; Page, Donald F.
 CORPORATE SOURCE: Sterlin-Winthrop Res. Inst., Rensselaer, N. Y., USA
 SOURCE: J. Med. Chem. (1970), 13(1), 145
 CODEN: JMCMAR
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 GI For diagram(s), see printed CA Issue.
 AB Et 1,2,3,4-tetrahydro-9H-pyrido[3,4-b]indole-3-carboxylate was treated with ClCH₂COCl and heated with PhNH₂ to give I (R₂ = O),

08/ 669,389

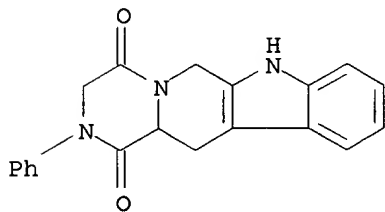
which was reduced with LiAlH₄ to the title compd. (I, R = H). In contrast to oxypertine, 1 mg/kg I (R = H) caused a 91% increase in the spontaneous activity of mice and showed no central nervous system depressant activity.

IT 25478-29-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 25478-29-9 CAPLUS

CN Pyrazino[1',2':1,6]pyrido[3,4-b]indole-1,4-dione,
2,3,6,7,12,12a-hexahydro-2-phenyl- (8CI, 9CI) (CA INDEX NAME)



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COST IN U.S. DOLLARS

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TOTAL

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FULL ESTIMATED COST

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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

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TOTAL

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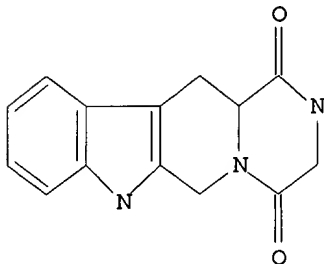
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08/ 669,389

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L1 STR



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FULL ESTIMATED COST

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08/ 669,389

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COST IN U.S. DOLLARS

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FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
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